

Comparing PNN1 cuts to PNN2 cuts on PNN1+PNN2 events in the beam background.

I accepted pnn1 or pnn2 triggers. The *pnn2p1cuts* columns are using pnn1-level cuts. When a cut is set at PNN1's level then there will be a *.949* suffix attached to the name. *cur* attached to a cut name refers to the cut being set at the current PNN2 level (i.e. the cut has not changed from pnn1). The *notargf* column is the PNN2 beam background without applying inverting the targf cut; this was done for easier comparison with the PNN1 cuts.

I noticed in the rejection of the 1-Beam branches were doubled due to one additional event passing all cuts at the PNN2 level cuts, but the same event was being removed from the PNN1 level cuts. I determined what cut the event was passing. This event was not being rejected by PNN2-level *rsdedxcl* cut.

PNN1's *rsdedx_cl* cut is the following:

```
if(cl_rsdedx.lt.0.04.and.chimax_rsdedx.lt.0)return  
if(cl_rsdedx.lt.0.2.and.chimax_rsdedx.gt.0)return
```

PNN2's *rsdedx_cl* cut has been changed to the following:

```
if(cl_rsdedx.lt.0.04)return
```

My question is what is the reason this cut has been changed? How much acceptance increase do we get from loosening this cut?

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Numbers in tables created on unknown unknown unknown.

Data processed in Dec 2005 - Jan 2006.

This data has been skimmed from PNN2-ntuples with the following cuts: OR of 1/3 skims, BAD_RUN, (BOX2 or boxcuts), RSDEDXMAX, RSDEDXCL on the PNN2_SKIM set.

The title of a column describes the data set used.

pnn2 = PNN1+PNN2 data with the most up-to-date cuts applied.

pnn1 = PNN1 data with the most up-to-date cuts applied.

pnn2only = PNN2 data with the most up-to-date cuts applied.

Tables 1-5 are a summary of the long tables that follow.

The long tables track the events on a cut-by-cut basis. There are 3 columns per data set analyzed. In each column the first number in the cell is the number of events and the number in parenthesis is the rejection. The 1st column is the cuts applied sequentially; the 2nd is the application of only the listed cut; The 3rd is the number of events remaining before this cut is applied and the rejection of the cut.

Some cuts may have 787, 949, or cur attached to them. That means that the cut is set at the e787-pnn2, e949-pnn1, or the current e949-pnn2 level. Note that many of the cuts labeled cur are more than likely to be a carry over from e949-pnn1.

<i>rejection (n)</i>	pnn2p1cuts	notargf
<i>Loose Setup</i>	25158.0 ± 25157.5 (1)	13290.5 ± 9397.5 (2)
<i>TD</i>	14908.0 ± 14907.5 (1)	7891.5 ± 5579.8 (2)
<i>TD · KIN</i>	2437.0 ± 2436.5 (1)	4943.0 ± 4942.5 (1)

Table 1: **1-Beam Rejection Summary** of Tables 6-8. Each row is a different branch to measure the DELCO rejection. First number is the rejection. The number in parenthesis is the number of events remaining that the rejection is based upon. The minimum rejection is used in calculation of the 1-BM background for a conservative estimate.

<i>Norm. branches</i>	pnn2p1cuts	notargf
ALL cuts below NORM	14.0 ± 3.7	1.0 ± 1.0
<i>PV · TD norm</i>	217.0 ± 14.7	5.0 ± 2.2
<i>CkTRS · CkTail rej</i>	3.2 ± 0.1	4.1 ± 1.3
<i>B4DEX norm</i>	321.0 ± 17.9	1.0 ± 1.0
<i>CpiTRS · CpiTail rej</i>	144.0 ± 143.5	0.0 ± 0.0
N_K	99.1 ± 8.2	1.6 ± 0.9
N_{pi}	2.2 ± 2.2	99999.0 ± 19999.8

Table 2: **1-Beam Normalization Summary** of Tables 9-13. The ALL-cuts-below row uses the combination of all cuts in the following 4 rows (branches) and is the normalization number used in the calculation of the numbers reported in Table 5 (Total Background). The sum of the last two rows provide a check on the ALL-cuts-below number.

<i>rejection</i> (<i>n</i>)	pnn2p1cuts	notargf
$Rej_{K-K} : BWTRS \cdot CkTRS \cdot CkTail$	10.1 ± 0.6 (265)	10.3 ± 0.6 (266)
$Rej_{K-pi} : BWTRS \cdot CpiTRS \cdot CpiTail$	38.6 ± 3.1 (152)	39.0 ± 3.1 (155)

Table 3: **2-Beam Rejection Summary** of Tables 14-15. First number is the rejection. The number in parenthesis is the number of events remaining that the rejection is based upon. K-K is the case where two Kaons are entering the beam. K-pi is the case where we have a Kaon and a Pion entering. $\overline{B4TRS \cdot B4CCD}$ is applied.

<i>Norm. branches</i>	pnn2p1cuts	notargf
$K-K_n : B4TRS \cdot B4CCD$	7.0 ± 2.6	1.0 ± 1.0
$K-K_r : TG \cdot TGKIN \cdot TGPV$	41.5 ± 29.0	2.0 ± 1.4
$K-pi_n : B4TRS \cdot B4CCD$	26.0 ± 5.1	1.0 ± 1.0
$K-pi_r : TG \cdot TGKIN \cdot TGPV$	188.0 ± 132.6	6.0 ± 5.5
N_{K-K}	0.2 ± 0.1	1.0 ± 1.2
N_{K-pi}	0.1 ± 0.1	0.2 ± 0.3

Table 4: **2-Beam Normalization Summary** of Tables 16-19. The 2-BM Normalization has 2 branches that are further bifurcated. $K-K_{r,n}$, $K-pi_{r,n}$ are the results of the bifurcations, r=rejection, n=normalization, which we used to determine the last two rows. N_{K-K} and N_{K-pi} are the 2-BM normalization values which are used in combination with Table 3 to give the final background in Table 5. For KK (Kpi), $\overline{CkTRS \cdot CkTAIL \cdot BWTRS}$ ($\overline{CpiTRS \cdot CpiTAIL \cdot BWTRS}$) is applied

<i>Bkgrnd</i> ($\times 10^{-3}$)	k034	e787	pnn2p1cuts	notargf
1-BM	3.86 ± 2.36	1.66 ± 1.66	17.24 ± 17.24	0.61 ± 0.61
2-BM KK	0.983 ± 0.983	145.9 ± 145.9	56.92 ± 45.33	323.62 ± 396.81
2-BM Kpi	0.106 ± 0.106	19.7 ± 19.7	11.08 ± 8.16	15.79 ± 21.41
2-BM	1.14 ± 1.14	165.6 ± 165.6	68.00 ± 46.06	339.41 ± 339.41
Total	5.00 ± 2.62	167.3 ± 167.3	85.24 ± 49.39	340.02 ± 340.02

Table 5: **Total Background.** Scaled to the 3/3 sample. k034 column is the result of e949-pnn1 analysis. e787 is the result of the e787-PNN2 analysis. The other columns are current results that are expanded upon throughout the rest of the tables. The errors are statistical. KB_{live} for k034 is 1.77×10^{12} and for e787 is 1.71×10^{12} . e787 background has been scaled up accordingly for comparison purposes.

Table 6: 1-Beam Rejection. Branch no. 1

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>BOX</i>	654085 (0.00)	0 (654085.00)	1 (1.00)	763506 (0.00)	0 (763506.00)	2 (1.00)
<i>rsdedxmax cur</i>	654085 (1.00)	0 (654085.00)	1 (1.00)	763506 (1.00)	0 (763506.00)	2 (1.00)
<i>rsdedxcl 949</i>	654085 (1.00)	0 (654085.00)	1 (1.00)	763506 (1.00)	0 (763506.00)	2 (1.00)
<i>rslike cur</i>	654085 (1.00)	0 (654085.00)	1 (1.00)	763506 (1.00)	0 (763506.00)	2 (1.00)
<i>rngmom cur</i>	506041 (1.29)	148044 (4.42)	3 (3.00)	540193 (1.41)	223313 (3.42)	6 (3.00)
<i>pv(nottg) cur</i>	269155 (1.88)	286409 (2.28)	6 (6.00)	287589 (1.88)	327438 (2.33)	7 (3.50)
<i>bwtrs cur</i>	204820 (1.31)	147119 (4.45)	1 (1.00)	218807 (1.31)	176329 (4.33)	2 (1.00)
<i>b4trs cur</i>	178709 (1.15)	143751 (4.55)	4 (4.00)	190944 (1.15)	170529 (4.48)	4 (2.00)
<i>b4ccd cur</i>	178289 (1.00)	7445 (87.86)	1 (1.00)	190491 (1.00)	9165 (83.31)	2 (1.00)
<i>tgqualt 949</i>	178289 (1.00)	0 (654085.00)	1 (1.00)	176293 (1.08)	54567 (13.99)	2 (1.00)
<i>timcon cur</i>	177334 (1.01)	7776 (84.12)	1 (1.00)	175365 (1.01)	8971 (85.11)	2 (1.00)
<i>epity 949</i>	175255 (1.01)	17722 (36.91)	1 (1.00)	173126 (1.01)	19737 (38.68)	2 (1.00)
<i>tger 949</i>	173255 (1.01)	18275 (35.79)	1 (1.00)	171966 (1.01)	20789 (36.73)	2 (1.00)
<i>targf 949</i>	165367 (1.05)	88509 (7.39)	4 (4.00)	163539 (1.05)	105229 (7.26)	5 (2.50)
<i>ticcon 949</i>	165363 (1.00)	95 (6885.11)	1 (1.00)	163536 (1.00)	117 (6525.69)	2 (1.00)
<i>dtgttp 949</i>	165255 (1.00)	577 (1133.60)	1 (1.00)	163516 (1.00)	653 (1169.23)	2 (1.00)
<i>rtdif 949</i>	159042 (1.04)	16163 (40.47)	1 (1.00)	157258 (1.04)	17941 (42.56)	2 (1.00)
<i>epimaxk 949</i>	150770 (1.05)	41675 (15.69)	1 (1.00)	148417 (1.06)	46984 (16.25)	2 (1.00)
<i>drp 949</i>	146934 (1.03)	12500 (52.33)	1 (1.00)	144313 (1.03)	13627 (56.03)	2 (1.00)
<i>phivtx1 949</i>	117351 (1.25)	144733 (4.52)	3 (3.00)	112699 (1.28)	168683 (4.53)	5 (2.50)
<i>eiccon 949</i>	112708 (1.04)	28883 (22.65)	1 (1.00)	109710 (1.03)	32211 (23.70)	2 (1.00)
<i>opsveto 949</i>	84595 (1.33)	202745 (3.23)	1 (1.00)	85469 (1.28)	233980 (3.26)	2 (1.00)
<i>kic 949</i>	74565 (1.13)	130535 (5.01)	1 (1.00)	77112 (1.11)	153781 (4.96)	2 (1.00)
<i>tgeo cur</i>	63559 (1.17)	275388 (2.38)	2 (2.00)	66459 (1.16)	319091 (2.39)	2 (1.00)
<i>tdedge 949</i>	58945 (1.08)	94323 (6.93)	1 (1.00)	62087 (1.07)	108151 (7.06)	2 (1.00)
<i>tgzfool 949</i>	58776 (1.00)	10104 (64.74)	1 (1.00)	61907 (1.00)	12333 (61.91)	2 (1.00)
<i>upvtrs cur</i>	51081 (1.15)	54697 (11.96)	1 (1.00)	53869 (1.15)	60718 (12.57)	2 (1.00)
<i>rvtrs cur</i>	50803 (1.01)	13274 (49.28)	1 (1.00)	53598 (1.01)	15533 (49.15)	2 (1.00)
<i>tgtcon cur</i>	48217 (1.05)	54148 (12.08)	7 (7.00)	50905 (1.05)	60727 (12.57)	6 (3.00)
<i>b4etcon cur</i>	46980 (1.03)	20825 (31.41)	1 (1.00)	49578 (1.03)	23606 (32.34)	2 (1.00)
<i>b4abm < 1.0</i>	25158 (1.87)	485804 (1.35)	471 (471.00)	26581 (1.87)	581714 (1.31)	516 (258.00)
<i>DELCO 949</i>	1 (25158.00)	470196 (1.39)	25158 (25158.00)	2 (13290.50)	544240 (1.40)	26581 (13290.50)
Total Rej.		25158.00			13290.50	

Table 7: 1-Beam Rejection. Branch no. 2

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>BOX</i>	654085 (0.00)	0 (654085.00)	1 (1.00)	763506 (0.00)	0 (763506.00)	2 (1.00)
<i>rsdedxmax cur</i>	654085 (1.00)	0 (654085.00)	1 (1.00)	763506 (1.00)	0 (763506.00)	2 (1.00)
<i>rsdedxcl 949</i>	654085 (1.00)	0 (654085.00)	1 (1.00)	763506 (1.00)	0 (763506.00)	2 (1.00)
<i>rslike cur</i>	654085 (1.00)	0 (654085.00)	1 (1.00)	763506 (1.00)	0 (763506.00)	2 (1.00)
<i>rngmom cur</i>	506041 (1.29)	148044 (4.42)	1 (1.00)	540193 (1.41)	223313 (3.42)	2 (1.00)
<i>pv(nottg) cur</i>	269155 (1.88)	286409 (2.28)	2 (2.00)	287589 (1.88)	327438 (2.33)	3 (1.50)
<i>bwtrs cur</i>	204820 (1.31)	147119 (4.45)	1 (1.00)	218807 (1.31)	176329 (4.33)	2 (1.00)
<i>b4trs cur</i>	178709 (1.15)	143751 (4.55)	3 (3.00)	190944 (1.15)	170529 (4.48)	3 (1.50)
<i>b4ccd cur</i>	178289 (1.00)	7445 (87.86)	1 (1.00)	190491 (1.00)	9165 (83.31)	2 (1.00)
<i>tgqualt 949</i>	178289 (1.00)	0 (654085.00)	1 (1.00)	176293 (1.08)	54567 (13.99)	2 (1.00)
<i>timcon cur</i>	177334 (1.01)	7776 (84.12)	1 (1.00)	175365 (1.01)	8971 (85.11)	2 (1.00)
<i>epity 949</i>	175255 (1.01)	17722 (36.91)	1 (1.00)	173126 (1.01)	19737 (38.68)	2 (1.00)
<i>tger 949</i>	173255 (1.01)	18275 (35.79)	1 (1.00)	171966 (1.01)	20789 (36.73)	2 (1.00)
<i>targf 949</i>	165367 (1.05)	88509 (7.39)	3 (3.00)	163539 (1.05)	105229 (7.26)	4 (2.00)
<i>ticcon 949</i>	165363 (1.00)	95 (6885.11)	1 (1.00)	163536 (1.00)	117 (6525.69)	2 (1.00)
<i>dtgtp 949</i>	165255 (1.00)	577 (1133.60)	1 (1.00)	163516 (1.00)	653 (1169.23)	2 (1.00)
<i>rtdif 949</i>	159042 (1.04)	16163 (40.47)	1 (1.00)	157258 (1.04)	17941 (42.56)	2 (1.00)
<i>epimaxk 949</i>	150770 (1.05)	41675 (15.69)	1 (1.00)	148417 (1.06)	46984 (16.25)	2 (1.00)
<i>drp 949</i>	146934 (1.03)	12500 (52.33)	1 (1.00)	144313 (1.03)	13627 (56.03)	2 (1.00)
<i>phivtx1 949</i>	117351 (1.25)	144733 (4.52)	3 (3.00)	112699 (1.28)	168683 (4.53)	4 (2.00)
<i>eiccon 949</i>	112708 (1.04)	28883 (22.65)	1 (1.00)	109710 (1.03)	32211 (23.70)	2 (1.00)
<i>opsveto 949</i>	84595 (1.33)	202745 (3.23)	1 (1.00)	85469 (1.28)	233980 (3.26)	2 (1.00)
<i>kic 949</i>	74565 (1.13)	130535 (5.01)	1 (1.00)	77112 (1.11)	153781 (4.96)	2 (1.00)
<i>tgeo cur</i>	63559 (1.17)	275388 (2.38)	1 (1.00)	66459 (1.16)	319091 (2.39)	2 (1.00)
<i>tdedge 949</i>	58945 (1.08)	94323 (6.93)	1 (1.00)	62087 (1.07)	108151 (7.06)	2 (1.00)
<i>tgzfool 949</i>	58776 (1.00)	10104 (64.74)	1 (1.00)	61907 (1.00)	12333 (61.91)	2 (1.00)
<i>upvtrs cur</i>	51081 (1.15)	54697 (11.96)	1 (1.00)	53869 (1.15)	60718 (12.57)	2 (1.00)
<i>rvtrs cur</i>	50803 (1.01)	13274 (49.28)	1 (1.00)	53598 (1.01)	15533 (49.15)	2 (1.00)
<i>tgtcon cur</i>	48217 (1.05)	54148 (12.08)	5 (5.00)	50905 (1.05)	60727 (12.57)	5 (2.50)
<i>b4etcon cur</i>	46980 (1.03)	20825 (31.41)	1 (1.00)	49578 (1.03)	23606 (32.34)	2 (1.00)
<i>b4abm < 1.0</i>	25158 (1.87)	485804 (1.35)	227 (227.00)	26581 (1.87)	581714 (1.31)	235 (117.50)
<i>piflg cur</i>	25086 (1.00)	15434 (42.38)	1 (1.00)	26509 (1.00)	25958 (29.41)	2 (1.00)
<i>ev502 cur</i>	19898 (1.26)	174904 (3.74)	1 (1.00)	21025 (1.26)	218072 (3.50)	2 (1.00)
<i>elveto cur</i>	18290 (1.09)	135422 (4.83)	1 (1.00)	19324 (1.09)	184712 (4.13)	2 (1.00)
<i>tdfool cur</i>	18247 (1.00)	95454 (6.85)	1 (1.00)	19279 (1.00)	134180 (5.69)	2 (1.00)
<i>tdvarnn02 cur</i>	14908 (1.22)	213045 (3.07)	1 (1.00)	15783 (1.22)	283368 (2.69)	2 (1.00)
TD cur	14908 (1.00)	345081 (1.90)	1 (1.00)	15783 (1.00)	433258 (1.76)	2 (1.00)
<i>DELCO 949</i>	1 (14908.00)	470196 (1.39)	14908 (14908.00)	2 (7891.50)	544240 (1.40)	15783 (7891.50)
Total Rej.		14908.00			7891.50	

Table 8: 1-Beam Rejection. Branch no. 3

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>BOX</i>	654085 (0.00)	0 (654085.00)	1 (1.00)	763506 (0.00)	0 (763506.00)	1 (1.00)
<i>rsdedxmax cur</i>	654085 (1.00)	0 (654085.00)	1 (1.00)	763506 (1.00)	0 (763506.00)	1 (1.00)
<i>rsdedxcl 949</i>	654085 (1.00)	0 (654085.00)	1 (1.00)	763506 (1.00)	0 (763506.00)	1 (1.00)
<i>rslike cur</i>	654085 (1.00)	0 (654085.00)	1 (1.00)	763506 (1.00)	0 (763506.00)	1 (1.00)
<i>rngmom cur</i>	506041 (1.29)	148044 (4.42)	1 (1.00)	540193 (1.41)	223313 (3.42)	1 (1.00)
<i>pvtogg cur</i>	269155 (1.88)	286409 (2.28)	1 (1.00)	287589 (1.88)	327438 (2.33)	1 (1.00)
<i>bwtrs cur</i>	204820 (1.31)	147119 (4.45)	1 (1.00)	218807 (1.31)	176329 (4.33)	1 (1.00)
<i>b4trs cur</i>	178709 (1.15)	143751 (4.55)	1 (1.00)	190944 (1.15)	170529 (4.48)	1 (1.00)
<i>b4ccd cur</i>	178289 (1.00)	7445 (87.86)	1 (1.00)	190491 (1.00)	9165 (83.31)	1 (1.00)
<i>tgqualt 949</i>	178289 (1.00)	0 (654085.00)	1 (1.00)	176293 (1.08)	54567 (13.99)	1 (1.00)
<i>timcon cur</i>	177334 (1.01)	7776 (84.12)	1 (1.00)	175365 (1.01)	8971 (85.11)	1 (1.00)
<i>epity 949</i>	175255 (1.01)	17722 (36.91)	1 (1.00)	173126 (1.01)	19737 (38.68)	1 (1.00)
<i>tger 949</i>	173255 (1.01)	18275 (35.79)	1 (1.00)	171966 (1.01)	20789 (36.73)	1 (1.00)
<i>targf 949</i>	165367 (1.05)	88509 (7.39)	1 (1.00)	163539 (1.05)	105229 (7.26)	1 (1.00)
<i>ticcon 949</i>	165363 (1.00)	95 (6885.11)	1 (1.00)	163536 (1.00)	117 (6525.69)	1 (1.00)
<i>dtgtp 949</i>	165255 (1.00)	577 (1133.60)	1 (1.00)	163516 (1.00)	653 (1169.23)	1 (1.00)
<i>rtdif 949</i>	159042 (1.04)	16163 (40.47)	1 (1.00)	157258 (1.04)	17941 (42.56)	1 (1.00)
<i>epimaxk 949</i>	150770 (1.05)	41675 (15.69)	1 (1.00)	148417 (1.06)	46984 (16.25)	1 (1.00)
<i>drp 949</i>	146934 (1.03)	12500 (52.33)	1 (1.00)	144313 (1.03)	13627 (56.03)	1 (1.00)
<i>phivtx1 949</i>	117351 (1.25)	144733 (4.52)	1 (1.00)	112699 (1.28)	168683 (4.53)	1 (1.00)
<i>eiccon 949</i>	112708 (1.04)	28883 (22.65)	1 (1.00)	109710 (1.03)	32211 (23.70)	1 (1.00)
<i>opsveto 949</i>	84595 (1.33)	202745 (3.23)	1 (1.00)	85469 (1.28)	233980 (3.26)	1 (1.00)
<i>kic 949</i>	74565 (1.13)	130535 (5.01)	1 (1.00)	77112 (1.11)	153781 (4.96)	1 (1.00)
<i>tgeo cur</i>	63559 (1.17)	275388 (2.38)	1 (1.00)	66459 (1.16)	319091 (2.39)	1 (1.00)
<i>tdedge 949</i>	58945 (1.08)	94323 (6.93)	1 (1.00)	62087 (1.07)	108151 (7.06)	1 (1.00)
<i>tgzfool 949</i>	58776 (1.00)	10104 (64.74)	1 (1.00)	61907 (1.00)	12333 (61.91)	1 (1.00)
<i>upvtrs cur</i>	51081 (1.15)	54697 (11.96)	1 (1.00)	53869 (1.15)	60718 (12.57)	1 (1.00)
<i>rvtrs cur</i>	50803 (1.01)	13274 (49.28)	1 (1.00)	53598 (1.01)	15533 (49.15)	1 (1.00)
<i>tgtcon cur</i>	48217 (1.05)	54148 (12.08)	2 (2.00)	50905 (1.05)	60727 (12.57)	3 (3.00)
<i>b4etcon cur</i>	46980 (1.03)	20825 (31.41)	1 (1.00)	49578 (1.03)	23606 (32.34)	1 (1.00)
<i>b4abm < 1.0</i>	25158 (1.87)	485804 (1.35)	61 (61.00)	26581 (1.87)	581714 (1.31)	112 (112.00)
<i>piflg cur</i>	25086 (1.00)	15434 (42.38)	1 (1.00)	26509 (1.00)	25958 (29.41)	1 (1.00)
<i>ev502 cur</i>	19898 (1.26)	174904 (3.74)	1 (1.00)	21025 (1.26)	218072 (3.50)	1 (1.00)
<i>elveto cur</i>	18290 (1.09)	135422 (4.83)	1 (1.00)	19324 (1.09)	184712 (4.13)	1 (1.00)
<i>tdfool cur</i>	18247 (1.00)	95454 (6.85)	1 (1.00)	19279 (1.00)	134180 (5.69)	1 (1.00)
<i>tdvarnn02 cur</i>	14908 (1.22)	213045 (3.07)	1 (1.00)	15783 (1.22)	283368 (2.69)	1 (1.00)
<i>TD cur</i>	14908 (1.00)	345081 (1.90)	1 (1.00)	15783 (1.00)	433258 (1.76)	1 (1.00)
<i>BOX</i>	14908 (1.00)	0 (654085.00)	1 (1.00)	15783 (1.00)	0 (763506.00)	1 (1.00)
<i>icode14 cur</i>	14908 (1.00)	3 (218028.00)	1 (1.00)	15783 (1.00)	4 (190877.00)	1 (1.00)
<i>cos3d cur</i>	14114 (1.06)	51196 (12.78)	1 (1.00)	14915 (1.06)	58256 (13.11)	1 (1.00)
<i>layv4</i>	14114 (1.00)	0 (654085.00)	1 (1.00)	14915 (1.00)	0 (763506.00)	1 (1.00)
<i>zfrf cur</i>	14110 (1.00)	648 (1009.39)	1 (1.00)	14910 (1.00)	828 (922.11)	1 (1.00)
<i>zutout cur</i>	14107 (1.00)	557 (1174.30)	1 (1.00)	14906 (1.00)	592 (1289.71)	1 (1.00)
FIDUCIAL 949	14107 (1.00)	52109 (12.55)	1 (1.00)	14906 (1.00)	59345 (12.87)	1 (1.00)
<i>utcqual 949</i>	11240 (1.26)	208256 (3.14)	1 (1.00)	12995 (1.15)	153963 (4.96)	1 (1.00)
<i>rsdedxcl 949</i>	11240 (1.00)	0 (654085.00)	1 (1.00)	12995 (1.00)	0 (763506.00)	1 (1.00)
<i>rsdedxmax cur</i>	11240 (1.00)	0 (654085.00)	1 (1.00)	12995 (1.00)	0 (763506.00)	1 (1.00)
<i>rslike cur</i>	11240 (1.00)	0 (654085.00)	1 (1.00)	12995 (1.00)	0 (763506.00)	1 (1.00)
<i>rngmom cur</i>	11240 (1.00)	148044 (4.42)	1 (1.00)	12995 (1.00)	223313 (3.42)	1 (1.00)
<i>prrf1 949</i>	6620 (1.70)	253120 (2.58)	1 (1.00)	12575 (1.03)	24547 (31.10)	1 (1.00)
<i>prrfz 949</i>	5659 (1.17)	102690 (6.37)	1 (1.00)	11996 (1.05)	51815 (14.74)	1 (1.00)
PRRF 949	5659 (1.00)	323368 (2.02)	1 (1.00)	11996 (1.00)	73789 (10.35)	1 (1.00)
<i>rtghi cur</i>	5658 (1.00)	1813 (360.77)	1 (1.00)	11990 (1.00)	2460 (310.37)	1 (1.00)
<i>etghi cur</i>	5611 (1.01)	14056 (46.53)	1 (1.00)	11865 (1.01)	18464 (41.35)	1 (1.00)
<i>tgeddx1 cur</i>	5057 (1.11)	121866 (5.37)	1 (1.00)	10635 (1.12)	136457 (5.60)	1 (1.00)

continued on next page

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>tgdedx2 cur</i>	4872 (1.04)	56131 (11.65)	1 (1.00)	10297 (1.03)	63770 (11.97)	1 (1.00)
tgdedx cur	4872 (1.00)	185457 (3.53)	1 (1.00)	10297 (1.00)	210833 (3.62)	1 (1.00)
<i>tglke1 cur</i>	4660 (1.05)	95963 (6.82)	1 (1.00)	9803 (1.05)	108578 (7.03)	1 (1.00)
<i>tglke2 cur</i>	4473 (1.04)	84235 (7.76)	1 (1.00)	9365 (1.05)	97907 (7.80)	1 (1.00)
TGLIKE cur	4473 (1.00)	128668 (5.08)	1 (1.00)	9365 (1.00)	147246 (5.19)	1 (1.00)
<i>tgdb4 cur</i>	4369 (1.02)	53110 (12.32)	1 (1.00)	9134 (1.03)	60906 (12.54)	1 (1.00)
<i>tgdb4tip cur</i>	3139 (1.39)	184461 (3.55)	1 (1.00)	6526 (1.40)	208039 (3.67)	1 (1.00)
<i>tgdvxtip cur</i>	2700 (1.16)	112127 (5.83)	1 (1.00)	5577 (1.17)	125191 (6.10)	1 (1.00)
<i>tgdxvpi cur</i>	2486 (1.09)	76314 (8.57)	1 (1.00)	5121 (1.09)	86718 (8.80)	1 (1.00)
TGB4 cur	2486 (1.00)	278240 (2.35)	1 (1.00)	5121 (1.00)	314260 (2.43)	1 (1.00)
<i>pigap cur</i>	2437 (1.02)	47738 (13.70)	1 (1.00)	4943 (1.04)	68694 (11.11)	1 (1.00)
KIN 949	2437 (1.00)	596904 (1.10)	1 (1.00)	4943 (1.00)	646729 (1.18)	1 (1.00)
<i>DELCO 949</i>	1 (2437.00)	470196 (1.39)	2437 (2437.00)	1 (4943.00)	544240 (1.40)	4943 (4943.00)
Total Rej.		2437.00			4943.00	

Table 9: 1-Beam Normalization. Branch no. 1

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>BOX</i>	654085 (0.00)	0 (654085.00)	14 (1.00)	763506 (0.00)	0 (763506.00)	0 (0.00)
<i>rsdedxmax cur</i>	654085 (1.00)	0 (654085.00)	14 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rsdedxcl 949</i>	654085 (1.00)	0 (654085.00)	14 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rslike cur</i>	654085 (1.00)	0 (654085.00)	14 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rngmom cur</i>	506041 (1.29)	148044 (4.42)	14 (1.00)	540193 (1.41)	223313 (3.42)	0 (0.00)
<i>BOX</i>	506041 (1.00)	0 (654085.00)	14 (1.00)	540193 (1.00)	0 (763506.00)	0 (0.00)
<i>icode14 cur</i>	506041 (1.00)	3 (218028.00)	14 (1.00)	540193 (1.00)	4 (190877.00)	0 (0.00)
<i>cos3d cur</i>	461701 (1.10)	51196 (12.78)	14 (1.00)	491709 (1.10)	58256 (13.11)	0 (0.00)
<i>layv4</i>	461701 (1.00)	0 (654085.00)	14 (1.00)	491709 (1.00)	0 (763506.00)	0 (0.00)
<i>zfrf cur</i>	461415 (1.00)	648 (1009.39)	14 (1.00)	491386 (1.00)	828 (922.11)	0 (0.00)
<i>zutout cur</i>	461128 (1.00)	557 (1174.30)	14 (1.00)	491085 (1.00)	592 (1289.71)	0 (0.00)
FIDUCIAL 949	461128 (1.00)	52109 (12.55)	14 (1.00)	491085 (1.00)	59345 (12.87)	0 (0.00)
<i>utcqual 949</i>	342630 (1.35)	208256 (3.14)	14 (1.00)	407397 (1.21)	153963 (4.96)	0 (0.00)
<i>rsdedxcl 949</i>	342630 (1.00)	0 (654085.00)	14 (1.00)	407397 (1.00)	0 (763506.00)	0 (0.00)
<i>rsdedxmax cur</i>	342630 (1.00)	0 (654085.00)	14 (1.00)	407397 (1.00)	0 (763506.00)	0 (0.00)
<i>rslike cur</i>	342630 (1.00)	0 (654085.00)	14 (1.00)	407397 (1.00)	0 (763506.00)	0 (0.00)
<i>tgktim off</i>	342630 (1.00)	0 (654085.00)	14 (1.00)	407397 (1.00)	0 (763506.00)	0 (0.00)
<i>rngmom cur</i>	342630 (1.00)	148044 (4.42)	14 (1.00)	407397 (1.00)	223313 (3.42)	0 (0.00)
<i>prrf1 949</i>	205095 (1.67)	253120 (2.58)	14 (1.00)	396237 (1.03)	24547 (31.10)	0 (0.00)
<i>prrfz 949</i>	171907 (1.19)	102690 (6.37)	14 (1.00)	374122 (1.06)	51815 (14.74)	0 (0.00)
PRRF 949	171907 (1.00)	323368 (2.02)	14 (1.00)	374122 (1.00)	73789 (10.35)	0 (0.00)
<i>rtghi cur</i>	171766 (1.00)	1813 (360.77)	14 (1.00)	373591 (1.00)	2460 (310.37)	0 (0.00)
<i>etghi cur</i>	168828 (1.02)	14056 (46.53)	14 (1.00)	366275 (1.02)	18464 (41.35)	0 (0.00)
<i>tgdedx1 cur</i>	132090 (1.28)	121866 (5.37)	14 (1.00)	285444 (1.28)	136457 (5.60)	0 (0.00)
<i>tgdedx2 cur</i>	122356 (1.08)	56131 (11.65)	14 (1.00)	259441 (1.10)	63770 (11.97)	0 (0.00)
tgdedx cur	122356 (1.00)	185457 (3.53)	14 (1.00)	259441 (1.00)	210833 (3.62)	0 (0.00)
<i>tglike1 cur</i>	111768 (1.09)	95963 (6.82)	14 (1.00)	236057 (1.10)	108578 (7.03)	0 (0.00)
<i>tglike2 cur</i>	105714 (1.06)	84235 (7.76)	14 (1.00)	222936 (1.06)	97907 (7.80)	0 (0.00)
TGLIKE cur	105714 (1.00)	128668 (5.08)	14 (1.00)	222936 (1.00)	147246 (5.19)	0 (0.00)
<i>tgd4 cur</i>	97845 (1.08)	53110 (12.32)	14 (1.00)	206294 (1.08)	60906 (12.54)	0 (0.00)
<i>tgd4tip cur</i>	73438 (1.33)	184461 (3.55)	14 (1.00)	154290 (1.34)	208039 (3.67)	0 (0.00)
<i>tgdvx tip cur</i>	63488 (1.16)	112127 (5.83)	14 (1.00)	132660 (1.16)	125191 (6.10)	0 (0.00)
<i>tgdvxpi cur</i>	59332 (1.07)	76314 (8.57)	14 (1.00)	123497 (1.07)	86718 (8.80)	0 (0.00)
TGB4 cur	59332 (1.00)	278240 (2.35)	14 (1.00)	123497 (1.00)	314260 (2.43)	0 (0.00)
<i>pigap cur</i>	57181 (1.04)	47738 (13.70)	14 (1.00)	116777 (1.06)	68694 (11.11)	0 (0.00)
KIN 949	57181 (1.00)	596904 (1.10)	14 (1.00)	116777 (1.00)	646729 (1.18)	0 (0.00)
<i>tgpv cur</i>	41751 (1.37)	199153 (3.28)	14 (1.00)	85384 (1.37)	229186 (3.33)	0 (0.00)
<i>bwtrs cur</i>	37108 (1.13)	147119 (4.45)	15 (1.07)	75772 (1.13)	176329 (4.33)	0 (0.00)
<i>b4trs cur</i>	33791 (1.10)	143751 (4.55)	14 (1.00)	68939 (1.10)	170529 (4.48)	0 (0.00)
<i>b4ccd cur</i>	33540 (1.01)	7445 (87.86)	14 (1.00)	68468 (1.01)	9165 (83.31)	0 (0.00)
<i>tgqualt 949</i>	33540 (1.00)	0 (654085.00)	14 (1.00)	62822 (1.09)	54567 (13.99)	0 (0.00)
<i>timcon cur</i>	33306 (1.01)	7776 (84.12)	14 (1.00)	62420 (1.01)	8971 (85.11)	0 (0.00)
<i>epity 949</i>	33270 (1.00)	17722 (36.91)	14 (1.00)	62350 (1.00)	19737 (38.68)	0 (0.00)
<i>tger 949</i>	33258 (1.00)	18275 (35.79)	14 (1.00)	62325 (1.00)	20789 (36.73)	0 (0.00)
<i>targf 949</i>	31915 (1.04)	88509 (7.39)	15 (1.07)	59585 (1.05)	105229 (7.26)	0 (0.00)
<i>ticcon 949</i>	31915 (1.00)	95 (6885.11)	14 (1.00)	59584 (1.00)	117 (6525.69)	0 (0.00)
<i>dtgtp 949</i>	31885 (1.00)	577 (1133.60)	14 (1.00)	59584 (1.00)	653 (1169.23)	0 (0.00)
<i>rtdif 949</i>	31338 (1.02)	16163 (40.47)	14 (1.00)	58648 (1.02)	17941 (42.56)	0 (0.00)
<i>epimaxk 949</i>	30812 (1.02)	41675 (15.69)	15 (1.07)	57529 (1.02)	46984 (16.25)	0 (0.00)
<i>drp 949</i>	30604 (1.01)	12500 (52.33)	14 (1.00)	57136 (1.01)	13627 (56.03)	0 (0.00)
<i>phivtx1 949</i>	26249 (1.17)	144733 (4.52)	15 (1.07)	48421 (1.18)	168683 (4.53)	0 (0.00)
<i>eiccon 949</i>	25325 (1.04)	28883 (22.65)	16 (1.14)	47335 (1.02)	32211 (23.70)	0 (0.00)
<i>opsveto 949</i>	20754 (1.22)	202745 (3.23)	17 (1.21)	39658 (1.19)	233980 (3.26)	0 (0.00)
<i>kic 949</i>	17961 (1.16)	130535 (5.01)	14 (1.00)	34870 (1.14)	153781 (4.96)	0 (0.00)
<i>tggeo cur</i>	14855 (1.21)	275388 (2.38)	15 (1.07)	29031 (1.20)	319091 (2.39)	0 (0.00)

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Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>tdedge</i> 949	14274 (1.04)	94323 (6.93)	14 (1.00)	28133 (1.03)	108151 (7.06)	0 (0.00)
<i>tgzfool</i> 949	14273 (1.00)	10104 (64.74)	14 (1.00)	28119 (1.00)	12333 (61.91)	0 (0.00)
<i>upvtrs cur</i>	12833 (1.11)	54697 (11.96)	14 (1.00)	25202 (1.12)	60718 (12.57)	0 (0.00)
<i>rvtrs cur</i>	12776 (1.00)	13274 (49.28)	14 (1.00)	25101 (1.00)	15533 (49.15)	0 (0.00)
<i>tgtcon cur</i>	11374 (1.12)	54148 (12.08)	33 (2.36)	22417 (1.12)	60727 (12.57)	0 (0.00)
<i>b4etcon cur</i>	11134 (1.02)	20825 (31.41)	14 (1.00)	21921 (1.02)	23606 (32.34)	0 (0.00)
<i>b4ekz cur</i>	4065 (2.74)	451738 (1.45)	21 (1.50)	7366 (2.98)	521719 (1.46)	0 (0.00)
<i>b4ekzic cur</i>	4065 (1.00)	69489 (9.41)	14 (1.00)	7366 (1.00)	78714 (9.70)	0 (0.00)
<i>b4tim off</i>	4065 (1.00)	0 (654085.00)	14 (1.00)	4869 (1.51)	395143 (1.93)	0 (0.00)
<i>tgktim off</i>	4065 (1.00)	0 (654085.00)	14 (1.00)	4869 (1.00)	0 (763506.00)	0 (0.00)
<i>tgenr off</i>	4065 (1.00)	0 (654085.00)	14 (1.00)	4824 (1.01)	92823 (8.23)	0 (0.00)
<i>chi567 off</i>	4065 (1.00)	0 (654085.00)	14 (1.00)	3063 (1.57)	511542 (1.49)	0 (0.00)
<i>npitg</i>	3909 (1.04)	48590 (13.46)	14 (1.00)	3063 (1.00)	54567 (13.99)	0 (0.00)
<i>verrng off</i>	3909 (1.00)	0 (654085.00)	14 (1.00)	2614 (1.17)	321757 (2.37)	0 (0.00)
<i>chi5max off</i>	3909 (1.00)	0 (654085.00)	14 (1.00)	2526 (1.03)	225902 (3.38)	0 (0.00)
<i>angli off</i>	3909 (1.00)	0 (654085.00)	14 (1.00)	2519 (1.00)	53576 (14.25)	0 (0.00)
<i>ALLKfit off</i>	3909 (1.00)	0 (654085.00)	14 (1.00)	2069 (1.22)	291298 (2.62)	0 (0.00)
<i>tpics off</i>	3909 (1.00)	0 (654085.00)	14 (1.00)	1884 (1.10)	98026 (7.79)	0 (0.00)
<i>epionk off</i>	3909 (1.00)	0 (654085.00)	14 (1.00)	1854 (1.02)	21959 (34.77)	0 (0.00)
<i>ccdpul off</i>	3909 (1.00)	0 (654085.00)	14 (1.00)	169 (10.97)	613958 (1.24)	0 (0.00)
<i>timkf off</i>	3909 (1.00)	0 (654085.00)	14 (1.00)	120 (1.41)	553685 (1.38)	0 (0.00)
<i>DELCO</i> 949	2108 (1.85)	183889 (3.56)	46 (3.29)	38 (3.16)	219266 (3.48)	2 (2.00)
<i>cpitrs cur</i>	1243 (1.70)	297310 (2.20)	294 (21.00)	38 (1.00)	318061 (2.40)	0 (0.00)
<i>cpitail cur</i>	1242 (1.00)	52804 (12.39)	14 (1.00)	38 (1.00)	56586 (13.49)	0 (0.00)
<i>b4dedx cur</i>	1226 (1.01)	196446 (3.33)	14 (1.00)	38 (1.00)	212707 (3.59)	0 (0.00)
<i>cktrs cur</i>	448 (2.74)	208742 (3.13)	115 (8.21)	15 (2.53)	267206 (2.86)	1 (1.00)
<i>cktail cur</i>	326 (1.37)	135216 (4.84)	22 (1.57)	8 (1.88)	170693 (4.47)	0 (0.00)
<i>PV cur</i>	25 (13.04)	376655 (1.74)	198 (14.14)	0 (8.00)	433883 (1.76)	3 (3.00)
<i>piflg cur</i>	25 (1.00)	15434 (42.38)	14 (1.00)	0 (0.00)	25958 (29.41)	0 (0.00)
<i>ev502 cur</i>	19 (1.32)	174904 (3.74)	14 (1.00)	0 (0.00)	218072 (3.50)	0 (0.00)
<i>elveto cur</i>	17 (1.12)	135422 (4.83)	14 (1.00)	0 (0.00)	184712 (4.13)	0 (0.00)
<i>tdfool cur</i>	17 (1.00)	95454 (6.85)	14 (1.00)	0 (0.00)	134180 (5.69)	0 (0.00)
<i>tdvarnn02 cur</i>	14 (1.21)	213045 (3.07)	14 (1.00)	0 (0.00)	283368 (2.69)	0 (0.00)
TD cur	14 (1.00)	345081 (1.90)	14 (1.00)	0 (0.00)	433258 (1.76)	0 (0.00)
Total Rej.		150.57			38.00	

Table 10: 1-Beam Normalization. Branch no. 2

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>BOX</i>	654085 (0.00)	0 (654085.00)	217 (1.00)	763506 (0.00)	0 (763506.00)	5 (1.00)
<i>rsdedxmax cur</i>	654085 (1.00)	0 (654085.00)	217 (1.00)	763506 (1.00)	0 (763506.00)	5 (1.00)
<i>rsdedxcl 949</i>	654085 (1.00)	0 (654085.00)	217 (1.00)	763506 (1.00)	0 (763506.00)	5 (1.00)
<i>rslike cur</i>	654085 (1.00)	0 (654085.00)	217 (1.00)	763506 (1.00)	0 (763506.00)	5 (1.00)
<i>rngmom cur</i>	506041 (1.29)	148044 (4.42)	217 (1.00)	540193 (1.41)	223313 (3.42)	5 (1.00)
<i>BOX</i>	506041 (1.00)	0 (654085.00)	217 (1.00)	540193 (1.00)	0 (763506.00)	5 (1.00)
<i>icode14 cur</i>	506041 (1.00)	3 (218028.00)	217 (1.00)	540193 (1.00)	4 (190877.00)	5 (1.00)
<i>cos3d cur</i>	461701 (1.10)	51196 (12.78)	217 (1.00)	491709 (1.10)	58256 (13.11)	5 (1.00)
<i>layv4</i>	461701 (1.00)	0 (654085.00)	217 (1.00)	491709 (1.00)	0 (763506.00)	5 (1.00)
<i>zfrf cur</i>	461415 (1.00)	648 (1009.39)	217 (1.00)	491386 (1.00)	828 (922.11)	5 (1.00)
<i>zutout cur</i>	461128 (1.00)	557 (1174.30)	217 (1.00)	491085 (1.00)	592 (1289.71)	5 (1.00)
FIDUCIAL 949	461128 (1.00)	52109 (12.55)	217 (1.00)	491085 (1.00)	59345 (12.87)	5 (1.00)
<i>utcqual 949</i>	342630 (1.35)	208256 (3.14)	217 (1.00)	407397 (1.21)	153963 (4.96)	5 (1.00)
<i>rsdedxcl 949</i>	342630 (1.00)	0 (654085.00)	217 (1.00)	407397 (1.00)	0 (763506.00)	5 (1.00)
<i>rsdedxmax cur</i>	342630 (1.00)	0 (654085.00)	217 (1.00)	407397 (1.00)	0 (763506.00)	5 (1.00)
<i>rslike cur</i>	342630 (1.00)	0 (654085.00)	217 (1.00)	407397 (1.00)	0 (763506.00)	5 (1.00)
<i>tgktim off</i>	342630 (1.00)	0 (654085.00)	217 (1.00)	407397 (1.00)	0 (763506.00)	5 (1.00)
<i>rngmom cur</i>	342630 (1.00)	148044 (4.42)	217 (1.00)	407397 (1.00)	223313 (3.42)	5 (1.00)
<i>prrf1 949</i>	205095 (1.67)	253120 (2.58)	217 (1.00)	396237 (1.03)	24547 (31.10)	5 (1.00)
<i>prrfz 949</i>	171907 (1.19)	102690 (6.37)	217 (1.00)	374122 (1.06)	51815 (14.74)	5 (1.00)
PRRF 949	171907 (1.00)	323368 (2.02)	217 (1.00)	374122 (1.00)	73789 (10.35)	5 (1.00)
<i>rtghi cur</i>	171766 (1.00)	1813 (360.77)	217 (1.00)	373591 (1.00)	2460 (310.37)	5 (1.00)
<i>etghi cur</i>	168828 (1.02)	14056 (46.53)	217 (1.00)	366275 (1.02)	18464 (41.35)	5 (1.00)
<i>tgdedx1 cur</i>	132090 (1.28)	121866 (5.37)	217 (1.00)	285444 (1.28)	136457 (5.60)	5 (1.00)
<i>tgdedx2 cur</i>	122356 (1.08)	56131 (11.65)	217 (1.00)	259441 (1.10)	63770 (11.97)	5 (1.00)
tgdedx cur	122356 (1.00)	185457 (3.53)	217 (1.00)	259441 (1.00)	210833 (3.62)	5 (1.00)
<i>tglike1 cur</i>	111768 (1.09)	95963 (6.82)	217 (1.00)	236057 (1.10)	108578 (7.03)	5 (1.00)
<i>tglike2 cur</i>	105714 (1.06)	84235 (7.76)	217 (1.00)	222936 (1.06)	97907 (7.80)	5 (1.00)
TGLIKE cur	105714 (1.00)	128668 (5.08)	217 (1.00)	222936 (1.00)	147246 (5.19)	5 (1.00)
<i>tgdb4 cur</i>	97845 (1.08)	53110 (12.32)	217 (1.00)	206294 (1.08)	60906 (12.54)	5 (1.00)
<i>tgdb4tip cur</i>	73438 (1.33)	184461 (3.55)	217 (1.00)	154290 (1.34)	208039 (3.67)	5 (1.00)
<i>tgdxvxtip cur</i>	63488 (1.16)	112127 (5.83)	217 (1.00)	132660 (1.16)	125191 (6.10)	5 (1.00)
<i>tgdxvxpi cur</i>	59332 (1.07)	76314 (8.57)	217 (1.00)	123497 (1.07)	86718 (8.80)	5 (1.00)
TGB4 cur	59332 (1.00)	278240 (2.35)	217 (1.00)	123497 (1.00)	314260 (2.43)	5 (1.00)
<i>pigap cur</i>	57181 (1.04)	47738 (13.70)	217 (1.00)	116777 (1.06)	68694 (11.11)	5 (1.00)
KIN 949	57181 (1.00)	596904 (1.10)	217 (1.00)	116777 (1.00)	646729 (1.18)	5 (1.00)
<i>tgpv cur</i>	41751 (1.37)	199153 (3.28)	217 (1.00)	85384 (1.37)	229186 (3.33)	5 (1.00)
<i>bwtrs cur</i>	37108 (1.13)	147119 (4.45)	237 (1.09)	75772 (1.13)	176329 (4.33)	5 (1.00)
<i>b4trs cur</i>	33791 (1.10)	143751 (4.55)	243 (1.12)	68939 (1.10)	170529 (4.48)	5 (1.00)
<i>b4ccd cur</i>	33540 (1.01)	7445 (87.86)	218 (1.00)	68468 (1.01)	9165 (83.31)	5 (1.00)
<i>tgqualt 949</i>	33540 (1.00)	0 (654085.00)	217 (1.00)	62822 (1.09)	54567 (13.99)	5 (1.00)
<i>timcon cur</i>	33306 (1.01)	7776 (84.12)	217 (1.00)	62420 (1.01)	8971 (85.11)	5 (1.00)
<i>epity 949</i>	33270 (1.00)	17722 (36.91)	217 (1.00)	62350 (1.00)	19737 (38.68)	5 (1.00)
<i>tger 949</i>	33258 (1.00)	18275 (35.79)	217 (1.00)	62325 (1.00)	20789 (36.73)	5 (1.00)
<i>targf 949</i>	31915 (1.04)	88509 (7.39)	226 (1.04)	59585 (1.05)	105229 (7.26)	5 (1.00)
<i>ticcon 949</i>	31915 (1.00)	95 (6885.11)	217 (1.00)	59584 (1.00)	117 (6525.69)	5 (1.00)
<i>dtgttp 949</i>	31885 (1.00)	577 (1133.60)	217 (1.00)	59584 (1.00)	653 (1169.23)	5 (1.00)
<i>rtdif 949</i>	31338 (1.02)	16163 (40.47)	224 (1.03)	58648 (1.02)	17941 (42.56)	5 (1.00)
<i>epimaxk 949</i>	30812 (1.02)	41675 (15.69)	222 (1.02)	57529 (1.02)	46984 (16.25)	5 (1.00)
<i>drp 949</i>	30604 (1.01)	12500 (52.33)	218 (1.00)	57136 (1.01)	13627 (56.03)	5 (1.00)
<i>phivtx1 949</i>	26249 (1.17)	144733 (4.52)	245 (1.13)	48421 (1.18)	168683 (4.53)	5 (1.00)
<i>eiccon 949</i>	25325 (1.04)	28883 (22.65)	221 (1.02)	47335 (1.02)	32211 (23.70)	5 (1.00)
<i>opsveto 949</i>	20754 (1.22)	202745 (3.23)	271 (1.25)	39658 (1.19)	233980 (3.26)	6 (1.20)
<i>kic 949</i>	17961 (1.16)	130535 (5.01)	218 (1.00)	34870 (1.14)	153781 (4.96)	5 (1.00)
<i>tggeo cur</i>	14855 (1.21)	275388 (2.38)	255 (1.18)	29031 (1.20)	319091 (2.39)	6 (1.20)

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Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>tdedge</i> 949	14274 (1.04)	94323 (6.93)	227 (1.05)	28133 (1.03)	108151 (7.06)	5 (1.00)
<i>tgzfool</i> 949	14273 (1.00)	10104 (64.74)	217 (1.00)	28119 (1.00)	12333 (61.91)	5 (1.00)
<i>upvtrs cur</i>	12833 (1.11)	54697 (11.96)	224 (1.03)	25202 (1.12)	60718 (12.57)	5 (1.00)
<i>rvtrs cur</i>	12776 (1.00)	13274 (49.28)	219 (1.01)	25101 (1.00)	15533 (49.15)	5 (1.00)
<i>tgtcon cur</i>	11374 (1.12)	54148 (12.08)	224 (1.03)	22417 (1.12)	60727 (12.57)	5 (1.00)
<i>b4etcon cur</i>	11134 (1.02)	20825 (31.41)	221 (1.02)	21921 (1.02)	23606 (32.34)	5 (1.00)
<i>b4ekz cur</i>	4065 (2.74)	451738 (1.45)	439 (2.02)	7366 (2.98)	521719 (1.46)	11 (2.20)
<i>b4ekzic cur</i>	4065 (1.00)	69489 (9.41)	217 (1.00)	7366 (1.00)	78714 (9.70)	5 (1.00)
<i>b4tim off</i>	4065 (1.00)	0 (654085.00)	217 (1.00)	4869 (1.51)	395143 (1.93)	5 (1.00)
<i>tgktim off</i>	4065 (1.00)	0 (654085.00)	217 (1.00)	4869 (1.00)	0 (763506.00)	5 (1.00)
<i>tgenr off</i>	4065 (1.00)	0 (654085.00)	217 (1.00)	4824 (1.01)	92823 (8.23)	5 (1.00)
<i>chi567 off</i>	4065 (1.00)	0 (654085.00)	217 (1.00)	3063 (1.57)	511542 (1.49)	5 (1.00)
<i>npitg</i>	3909 (1.04)	48590 (13.46)	220 (1.01)	3063 (1.00)	54567 (13.99)	5 (1.00)
<i>verrng off</i>	3909 (1.00)	0 (654085.00)	217 (1.00)	2614 (1.17)	321757 (2.37)	7 (1.40)
<i>chi5max off</i>	3909 (1.00)	0 (654085.00)	217 (1.00)	2526 (1.03)	225902 (3.38)	5 (1.00)
<i>angli off</i>	3909 (1.00)	0 (654085.00)	217 (1.00)	2519 (1.00)	53576 (14.25)	5 (1.00)
<i>ALLKfit off</i>	3909 (1.00)	0 (654085.00)	217 (1.00)	2069 (1.22)	291298 (2.62)	8 (1.60)
<i>tpics off</i>	3909 (1.00)	0 (654085.00)	217 (1.00)	1884 (1.10)	98026 (7.79)	6 (1.20)
<i>epionk off</i>	3909 (1.00)	0 (654085.00)	217 (1.00)	1854 (1.02)	21959 (34.77)	5 (1.00)
<i>ccdpul off</i>	3909 (1.00)	0 (654085.00)	217 (1.00)	169 (10.97)	613958 (1.24)	27 (5.40)
<i>timkf off</i>	3909 (1.00)	0 (654085.00)	217 (1.00)	120 (1.41)	553685 (1.38)	6 (1.20)
<i>DELCO</i> 949	2108 (1.85)	183889 (3.56)	218 (1.00)	38 (3.16)	219266 (3.48)	5 (1.00)
<i>cpitrs cur</i>	1243 (1.70)	297310 (2.20)	230 (1.06)	38 (1.00)	318061 (2.40)	5 (1.00)
<i>cpitail cur</i>	1242 (1.00)	52804 (12.39)	217 (1.00)	38 (1.00)	56586 (13.49)	5 (1.00)
<i>b4dedx cur</i>	1226 (1.01)	196446 (3.33)	222 (1.02)	38 (1.00)	212707 (3.59)	5 (1.00)
<i>cktrs · cktail</i>	900 (1.36)	417307 (1.57)	231 (1.06)	30 (1.27)	462111 (1.65)	5 (1.00)
<i>PV cur</i>	377 (2.39)	376655 (1.74)	511 (2.35)	7 (4.29)	433883 (1.76)	19 (3.80)
<i>piflg cur</i>	377 (1.00)	15434 (42.38)	217 (1.00)	7 (1.00)	25958 (29.41)	5 (1.00)
<i>ev502 cur</i>	287 (1.31)	174904 (3.74)	217 (1.00)	5 (1.40)	218072 (3.50)	5 (1.00)
<i>elveto cur</i>	262 (1.10)	135422 (4.83)	217 (1.00)	5 (1.00)	184712 (4.13)	5 (1.00)
<i>tdfool cur</i>	262 (1.00)	95454 (6.85)	217 (1.00)	5 (1.00)	134180 (5.69)	5 (1.00)
<i>tdvarnn02 cur</i>	217 (1.21)	213045 (3.07)	217 (1.00)	5 (1.00)	283368 (2.69)	5 (1.00)
TD cur	217 (1.00)	345081 (1.90)	217 (1.00)	5 (1.00)	433258 (1.76)	5 (1.00)
Total Rej.		4.15			6.00	

Table 11: 1-Beam Normalization. Branch no. 3

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>BOX</i>	654085 (0.00)	0 (654085.00)	312 (1.00)	763506 (0.00)	0 (763506.00)	8 (1.00)
<i>rsdedxmax cur</i>	654085 (1.00)	0 (654085.00)	312 (1.00)	763506 (1.00)	0 (763506.00)	8 (1.00)
<i>rsdedxcl 949</i>	654085 (1.00)	0 (654085.00)	312 (1.00)	763506 (1.00)	0 (763506.00)	8 (1.00)
<i>rslike cur</i>	654085 (1.00)	0 (654085.00)	312 (1.00)	763506 (1.00)	0 (763506.00)	8 (1.00)
<i>rngmom cur</i>	506041 (1.29)	148044 (4.42)	312 (1.00)	540193 (1.41)	223313 (3.42)	8 (1.00)
<i>BOX</i>	506041 (1.00)	0 (654085.00)	312 (1.00)	540193 (1.00)	0 (763506.00)	8 (1.00)
<i>icode14 cur</i>	506041 (1.00)	3 (218028.00)	312 (1.00)	540193 (1.00)	4 (190877.00)	8 (1.00)
<i>cos3d cur</i>	461701 (1.10)	51196 (12.78)	312 (1.00)	491709 (1.10)	58256 (13.11)	8 (1.00)
<i>layv4</i>	461701 (1.00)	0 (654085.00)	312 (1.00)	491709 (1.00)	0 (763506.00)	8 (1.00)
<i>zfrf cur</i>	461415 (1.00)	648 (1009.39)	312 (1.00)	491386 (1.00)	828 (922.11)	8 (1.00)
<i>zutout cur</i>	461128 (1.00)	557 (1174.30)	312 (1.00)	491085 (1.00)	592 (1289.71)	8 (1.00)
FIDUCIAL 949	461128 (1.00)	52109 (12.55)	312 (1.00)	491085 (1.00)	59345 (12.87)	8 (1.00)
<i>utcqual 949</i>	342630 (1.35)	208256 (3.14)	312 (1.00)	407397 (1.21)	153963 (4.96)	8 (1.00)
<i>rsdedxcl 949</i>	342630 (1.00)	0 (654085.00)	312 (1.00)	407397 (1.00)	0 (763506.00)	8 (1.00)
<i>rsdedxmax cur</i>	342630 (1.00)	0 (654085.00)	312 (1.00)	407397 (1.00)	0 (763506.00)	8 (1.00)
<i>rslike cur</i>	342630 (1.00)	0 (654085.00)	312 (1.00)	407397 (1.00)	0 (763506.00)	8 (1.00)
<i>tgktim off</i>	342630 (1.00)	0 (654085.00)	312 (1.00)	407397 (1.00)	0 (763506.00)	8 (1.00)
<i>rngmom cur</i>	342630 (1.00)	148044 (4.42)	312 (1.00)	407397 (1.00)	223313 (3.42)	8 (1.00)
<i>prrf1 949</i>	205095 (1.67)	253120 (2.58)	312 (1.00)	396237 (1.03)	24547 (31.10)	8 (1.00)
<i>prrfz 949</i>	171907 (1.19)	102690 (6.37)	312 (1.00)	374122 (1.06)	51815 (14.74)	8 (1.00)
PRRF 949	171907 (1.00)	323368 (2.02)	312 (1.00)	374122 (1.00)	73789 (10.35)	8 (1.00)
<i>rtghi cur</i>	171766 (1.00)	1813 (360.77)	312 (1.00)	373591 (1.00)	2460 (310.37)	8 (1.00)
<i>etghi cur</i>	168828 (1.02)	14056 (46.53)	312 (1.00)	366275 (1.02)	18464 (41.35)	8 (1.00)
<i>tgdedx1 cur</i>	132090 (1.28)	121866 (5.37)	312 (1.00)	285444 (1.28)	136457 (5.60)	8 (1.00)
<i>tgdedx2 cur</i>	122356 (1.08)	56131 (11.65)	312 (1.00)	259441 (1.10)	63770 (11.97)	8 (1.00)
tgdedx cur	122356 (1.00)	185457 (3.53)	312 (1.00)	259441 (1.00)	210833 (3.62)	8 (1.00)
<i>tglke1 cur</i>	111768 (1.09)	95963 (6.82)	312 (1.00)	236057 (1.10)	108578 (7.03)	8 (1.00)
<i>tglke2 cur</i>	105714 (1.06)	84235 (7.76)	312 (1.00)	222936 (1.06)	97907 (7.80)	8 (1.00)
TGLIKE cur	105714 (1.00)	128668 (5.08)	312 (1.00)	222936 (1.00)	147246 (5.19)	8 (1.00)
<i>tgd4 cur</i>	97845 (1.08)	53110 (12.32)	312 (1.00)	206294 (1.08)	60906 (12.54)	8 (1.00)
<i>tgd4tip cur</i>	73438 (1.33)	184461 (3.55)	312 (1.00)	154290 (1.34)	208039 (3.67)	8 (1.00)
<i>tgdvx tip cur</i>	63488 (1.16)	112127 (5.83)	312 (1.00)	132660 (1.16)	125191 (6.10)	8 (1.00)
<i>tgdvxpi cur</i>	59332 (1.07)	76314 (8.57)	312 (1.00)	123497 (1.07)	86718 (8.80)	8 (1.00)
TGB4 cur	59332 (1.00)	278240 (2.35)	312 (1.00)	123497 (1.00)	314260 (2.43)	8 (1.00)
<i>pigap cur</i>	57181 (1.04)	47738 (13.70)	312 (1.00)	116777 (1.06)	68694 (11.11)	8 (1.00)
KIN 949	57181 (1.00)	596904 (1.10)	312 (1.00)	116777 (1.00)	646729 (1.18)	8 (1.00)
<i>tgpv cur</i>	41751 (1.37)	199153 (3.28)	343 (1.10)	85384 (1.37)	229186 (3.33)	8 (1.00)
<i>bwtrs cur</i>	37108 (1.13)	147119 (4.45)	325 (1.04)	75772 (1.13)	176329 (4.33)	8 (1.00)
<i>b4trs cur</i>	33791 (1.10)	143751 (4.55)	325 (1.04)	68939 (1.10)	170529 (4.48)	8 (1.00)
<i>b4ccd cur</i>	33540 (1.01)	7445 (87.86)	323 (1.04)	68468 (1.01)	9165 (83.31)	8 (1.00)
<i>tgqualt 949</i>	33540 (1.00)	0 (654085.00)	312 (1.00)	62822 (1.09)	54567 (13.99)	8 (1.00)
<i>timcon cur</i>	33306 (1.01)	7776 (84.12)	312 (1.00)	62420 (1.01)	8971 (85.11)	8 (1.00)
<i>epity 949</i>	33270 (1.00)	17722 (36.91)	312 (1.00)	62350 (1.00)	19737 (38.68)	8 (1.00)
<i>tger 949</i>	33258 (1.00)	18275 (35.79)	312 (1.00)	62325 (1.00)	20789 (36.73)	8 (1.00)
<i>targf 949</i>	31915 (1.04)	88509 (7.39)	318 (1.02)	59585 (1.05)	105229 (7.26)	8 (1.00)
<i>ticcon 949</i>	31915 (1.00)	95 (6885.11)	312 (1.00)	59584 (1.00)	117 (6525.69)	8 (1.00)
<i>dtgtp 949</i>	31885 (1.00)	577 (1133.60)	312 (1.00)	59584 (1.00)	653 (1169.23)	8 (1.00)
<i>rtdif 949</i>	31338 (1.02)	16163 (40.47)	315 (1.01)	58648 (1.02)	17941 (42.56)	8 (1.00)
<i>epimaxk 949</i>	30812 (1.02)	41675 (15.69)	321 (1.03)	57529 (1.02)	46984 (16.25)	8 (1.00)
<i>drp 949</i>	30604 (1.01)	12500 (52.33)	314 (1.01)	57136 (1.01)	13627 (56.03)	8 (1.00)
<i>phivtx1 949</i>	26249 (1.17)	144733 (4.52)	361 (1.16)	48421 (1.18)	168683 (4.53)	8 (1.00)
<i>eiccon 949</i>	25325 (1.04)	28883 (22.65)	319 (1.02)	47335 (1.02)	32211 (23.70)	8 (1.00)
<i>opsveto 949</i>	20754 (1.22)	202745 (3.23)	338 (1.08)	39658 (1.19)	233980 (3.26)	8 (1.00)
<i>kic 949</i>	17961 (1.16)	130535 (5.01)	313 (1.00)	34870 (1.14)	153781 (4.96)	8 (1.00)
<i>tggeo cur</i>	14855 (1.21)	275388 (2.38)	380 (1.22)	29031 (1.20)	319091 (2.39)	9 (1.12)

continued on next page

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>tdedge</i> 949	14274 (1.04)	94323 (6.93)	321 (1.03)	28133 (1.03)	108151 (7.06)	9 (1.12)
<i>tgzfool</i> 949	14273 (1.00)	10104 (64.74)	312 (1.00)	28119 (1.00)	12333 (61.91)	8 (1.00)
<i>upvtrs cur</i>	12833 (1.11)	54697 (11.96)	320 (1.03)	25202 (1.12)	60718 (12.57)	8 (1.00)
<i>rvtrs cur</i>	12776 (1.00)	13274 (49.28)	314 (1.01)	25101 (1.00)	15533 (49.15)	8 (1.00)
<i>tgtcon cur</i>	11374 (1.12)	54148 (12.08)	735 (2.36)	22417 (1.12)	60727 (12.57)	8 (1.00)
<i>b4etcon cur</i>	11134 (1.02)	20825 (31.41)	316 (1.01)	21921 (1.02)	23606 (32.34)	8 (1.00)
<i>b4ekz cur</i>	4065 (2.74)	451738 (1.45)	400 (1.28)	7366 (2.98)	521719 (1.46)	9 (1.12)
<i>b4ekzic cur</i>	4065 (1.00)	69489 (9.41)	312 (1.00)	7366 (1.00)	78714 (9.70)	8 (1.00)
<i>b4tim off</i>	4065 (1.00)	0 (654085.00)	312 (1.00)	4869 (1.51)	395143 (1.93)	8 (1.00)
<i>tgktim off</i>	4065 (1.00)	0 (654085.00)	312 (1.00)	4869 (1.00)	0 (763506.00)	8 (1.00)
<i>tgenr off</i>	4065 (1.00)	0 (654085.00)	312 (1.00)	4824 (1.01)	92823 (8.23)	8 (1.00)
<i>chi567 off</i>	4065 (1.00)	0 (654085.00)	312 (1.00)	3063 (1.57)	511542 (1.49)	11 (1.38)
<i>npitg</i>	3909 (1.04)	48590 (13.46)	343 (1.10)	3063 (1.00)	54567 (13.99)	8 (1.00)
<i>verrng off</i>	3909 (1.00)	0 (654085.00)	312 (1.00)	2614 (1.17)	321757 (2.37)	9 (1.12)
<i>chi5max off</i>	3909 (1.00)	0 (654085.00)	312 (1.00)	2526 (1.03)	225902 (3.38)	8 (1.00)
<i>angli off</i>	3909 (1.00)	0 (654085.00)	312 (1.00)	2519 (1.00)	53576 (14.25)	8 (1.00)
<i>ALLKfit off</i>	3909 (1.00)	0 (654085.00)	312 (1.00)	2069 (1.22)	291298 (2.62)	8 (1.00)
<i>tpics off</i>	3909 (1.00)	0 (654085.00)	312 (1.00)	1884 (1.10)	98026 (7.79)	8 (1.00)
<i>epionk off</i>	3909 (1.00)	0 (654085.00)	312 (1.00)	1854 (1.02)	21959 (34.77)	8 (1.00)
<i>ccdpul off</i>	3909 (1.00)	0 (654085.00)	312 (1.00)	169 (10.97)	613958 (1.24)	80 (10.00)
<i>timkf off</i>	3909 (1.00)	0 (654085.00)	312 (1.00)	120 (1.41)	553685 (1.38)	19 (2.38)
<i>DELCO</i> 949	2108 (1.85)	183889 (3.56)	2038 (6.53)	38 (3.16)	219266 (3.48)	84 (10.50)
<i>cpitrs cur</i>	1243 (1.70)	297310 (2.20)	525 (1.68)	38 (1.00)	318061 (2.40)	8 (1.00)
<i>cpitail cur</i>	1242 (1.00)	52804 (12.39)	313 (1.00)	38 (1.00)	56586 (13.49)	8 (1.00)
<i>b4dedx cur</i>	1226 (1.01)	196446 (3.33)	313 (1.00)	38 (1.00)	212707 (3.59)	8 (1.00)
<i>PV · TD</i>	995 (1.23)	122790 (5.33)	326 (1.04)	33 (1.15)	131266 (5.82)	8 (1.00)
<i>cktrs cur</i>	426 (2.34)	208742 (3.13)	589 (1.89)	15 (2.20)	267206 (2.86)	14 (1.75)
<i>cktail cur</i>	312 (1.37)	135216 (4.84)	426 (1.37)	8 (1.88)	170693 (4.47)	15 (1.88)
Total Rej.		3.19			4.12	

Table 12: 1-Beam Normalization. Branch no. 4

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>BOX</i>	654085 (0.00)	0 (654085.00)	321 (1.00)	763506 (0.00)	0 (763506.00)	0 (0.00)
<i>rsdedxmax cur</i>	654085 (1.00)	0 (654085.00)	321 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rsdedxcl 949</i>	654085 (1.00)	0 (654085.00)	321 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rslike cur</i>	654085 (1.00)	0 (654085.00)	321 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rngmom cur</i>	506041 (1.29)	148044 (4.42)	321 (1.00)	540193 (1.41)	223313 (3.42)	0 (0.00)
<i>BOX</i>	506041 (1.00)	0 (654085.00)	321 (1.00)	540193 (1.00)	0 (763506.00)	0 (0.00)
<i>icode14 cur</i>	506041 (1.00)	3 (218028.00)	321 (1.00)	540193 (1.00)	4 (190877.00)	0 (0.00)
<i>cos3d cur</i>	461701 (1.10)	51196 (12.78)	321 (1.00)	491709 (1.10)	58256 (13.11)	0 (0.00)
<i>layv4</i>	461701 (1.00)	0 (654085.00)	321 (1.00)	491709 (1.00)	0 (763506.00)	0 (0.00)
<i>zfrf cur</i>	461415 (1.00)	648 (1009.39)	321 (1.00)	491386 (1.00)	828 (922.11)	0 (0.00)
<i>zutout cur</i>	461128 (1.00)	557 (1174.30)	321 (1.00)	491085 (1.00)	592 (1289.71)	0 (0.00)
FIDUCIAL 949	461128 (1.00)	52109 (12.55)	321 (1.00)	491085 (1.00)	59345 (12.87)	0 (0.00)
<i>utcqual 949</i>	342630 (1.35)	208256 (3.14)	321 (1.00)	407397 (1.21)	153963 (4.96)	0 (0.00)
<i>rsdedxcl 949</i>	342630 (1.00)	0 (654085.00)	321 (1.00)	407397 (1.00)	0 (763506.00)	0 (0.00)
<i>rsdedxmax cur</i>	342630 (1.00)	0 (654085.00)	321 (1.00)	407397 (1.00)	0 (763506.00)	0 (0.00)
<i>rslike cur</i>	342630 (1.00)	0 (654085.00)	321 (1.00)	407397 (1.00)	0 (763506.00)	0 (0.00)
<i>tgktim off</i>	342630 (1.00)	0 (654085.00)	321 (1.00)	407397 (1.00)	0 (763506.00)	0 (0.00)
<i>rngmom cur</i>	342630 (1.00)	148044 (4.42)	321 (1.00)	407397 (1.00)	223313 (3.42)	0 (0.00)
<i>prrf1 949</i>	205095 (1.67)	253120 (2.58)	321 (1.00)	396237 (1.03)	24547 (31.10)	0 (0.00)
<i>prrfz 949</i>	171907 (1.19)	102690 (6.37)	321 (1.00)	374122 (1.06)	51815 (14.74)	0 (0.00)
PRRF 949	171907 (1.00)	323368 (2.02)	321 (1.00)	374122 (1.00)	73789 (10.35)	0 (0.00)
<i>rtghi cur</i>	171766 (1.00)	1813 (360.77)	321 (1.00)	373591 (1.00)	2460 (310.37)	0 (0.00)
<i>etghi cur</i>	168828 (1.02)	14056 (46.53)	321 (1.00)	366275 (1.02)	18464 (41.35)	0 (0.00)
<i>tgdedx1 cur</i>	132090 (1.28)	121866 (5.37)	321 (1.00)	285444 (1.28)	136457 (5.60)	0 (0.00)
<i>tgdedx2 cur</i>	122356 (1.08)	56131 (11.65)	321 (1.00)	259441 (1.10)	63770 (11.97)	0 (0.00)
tgdedx cur	122356 (1.00)	185457 (3.53)	321 (1.00)	259441 (1.00)	210833 (3.62)	0 (0.00)
<i>tglike1 cur</i>	111768 (1.09)	95963 (6.82)	321 (1.00)	236057 (1.10)	108578 (7.03)	0 (0.00)
<i>tglike2 cur</i>	105714 (1.06)	84235 (7.76)	321 (1.00)	222936 (1.06)	97907 (7.80)	0 (0.00)
TGLIKE cur	105714 (1.00)	128668 (5.08)	321 (1.00)	222936 (1.00)	147246 (5.19)	0 (0.00)
<i>tgdb4 cur</i>	97845 (1.08)	53110 (12.32)	321 (1.00)	206294 (1.08)	60906 (12.54)	0 (0.00)
<i>tgdb4tip cur</i>	73438 (1.33)	184461 (3.55)	321 (1.00)	154290 (1.34)	208039 (3.67)	0 (0.00)
<i>tgdxvxtip cur</i>	63488 (1.16)	112127 (5.83)	321 (1.00)	132660 (1.16)	125191 (6.10)	0 (0.00)
<i>tgdxvxpi cur</i>	59332 (1.07)	76314 (8.57)	321 (1.00)	123497 (1.07)	86718 (8.80)	0 (0.00)
TGB4 cur	59332 (1.00)	278240 (2.35)	321 (1.00)	123497 (1.00)	314260 (2.43)	0 (0.00)
<i>pigap cur</i>	57181 (1.04)	47738 (13.70)	321 (1.00)	116777 (1.06)	68694 (11.11)	0 (0.00)
KIN 949	57181 (1.00)	596904 (1.10)	321 (1.00)	116777 (1.00)	646729 (1.18)	0 (0.00)
<i>tgpv cur</i>	41751 (1.37)	199153 (3.28)	339 (1.06)	85384 (1.37)	229186 (3.33)	0 (0.00)
<i>bwtrs cur</i>	37108 (1.13)	147119 (4.45)	345 (1.07)	75772 (1.13)	176329 (4.33)	0 (0.00)
<i>b4trs cur</i>	33791 (1.10)	143751 (4.55)	366 (1.14)	68939 (1.10)	170529 (4.48)	0 (0.00)
<i>b4ccd cur</i>	33540 (1.01)	7445 (87.86)	321 (1.00)	68468 (1.01)	9165 (83.31)	0 (0.00)
<i>tgqualt 949</i>	33540 (1.00)	0 (654085.00)	321 (1.00)	62822 (1.09)	54567 (13.99)	0 (0.00)
<i>timcon cur</i>	33306 (1.01)	7776 (84.12)	321 (1.00)	62420 (1.01)	8971 (85.11)	0 (0.00)
<i>epity 949</i>	33270 (1.00)	17722 (36.91)	321 (1.00)	62350 (1.00)	19737 (38.68)	0 (0.00)
<i>tger 949</i>	33258 (1.00)	18275 (35.79)	321 (1.00)	62325 (1.00)	20789 (36.73)	0 (0.00)
<i>targf 949</i>	31915 (1.04)	88509 (7.39)	329 (1.02)	59585 (1.05)	105229 (7.26)	0 (0.00)
<i>ticcon 949</i>	31915 (1.00)	95 (6885.11)	321 (1.00)	59584 (1.00)	117 (6525.69)	0 (0.00)
<i>dtgttp 949</i>	31885 (1.00)	577 (1133.60)	321 (1.00)	59584 (1.00)	653 (1169.23)	0 (0.00)
<i>rtdif 949</i>	31338 (1.02)	16163 (40.47)	321 (1.00)	58648 (1.02)	17941 (42.56)	0 (0.00)
<i>epimaxk 949</i>	30812 (1.02)	41675 (15.69)	334 (1.04)	57529 (1.02)	46984 (16.25)	0 (0.00)
<i>drp 949</i>	30604 (1.01)	12500 (52.33)	321 (1.00)	57136 (1.01)	13627 (56.03)	0 (0.00)
<i>phivtx1 949</i>	26249 (1.17)	144733 (4.52)	369 (1.15)	48421 (1.18)	168683 (4.53)	0 (0.00)
<i>eiccon 949</i>	25325 (1.04)	28883 (22.65)	326 (1.02)	47335 (1.02)	32211 (23.70)	0 (0.00)
<i>opsveto 949</i>	20754 (1.22)	202745 (3.23)	409 (1.27)	39658 (1.19)	233980 (3.26)	0 (0.00)
<i>kic 949</i>	17961 (1.16)	130535 (5.01)	326 (1.02)	34870 (1.14)	153781 (4.96)	0 (0.00)
<i>tggeo cur</i>	14855 (1.21)	275388 (2.38)	364 (1.13)	29031 (1.20)	319091 (2.39)	1 (1.00)

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Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>tdedge</i> 949	14274 (1.04)	94323 (6.93)	333 (1.04)	28133 (1.03)	108151 (7.06)	0 (0.00)
<i>tgzfool</i> 949	14273 (1.00)	10104 (64.74)	321 (1.00)	28119 (1.00)	12333 (61.91)	0 (0.00)
<i>upvtrs cur</i>	12833 (1.11)	54697 (11.96)	378 (1.18)	25202 (1.12)	60718 (12.57)	0 (0.00)
<i>rvtrs cur</i>	12776 (1.00)	13274 (49.28)	322 (1.00)	25101 (1.00)	15533 (49.15)	0 (0.00)
<i>tgtcon cur</i>	11374 (1.12)	54148 (12.08)	328 (1.02)	22417 (1.12)	60727 (12.57)	0 (0.00)
<i>b4etcon cur</i>	11134 (1.02)	20825 (31.41)	328 (1.02)	21921 (1.02)	23606 (32.34)	0 (0.00)
<i>b4ekz cur</i>	4065 (2.74)	451738 (1.45)	906 (2.82)	7366 (2.98)	521719 (1.46)	0 (0.00)
<i>b4ekzic cur</i>	4065 (1.00)	69489 (9.41)	321 (1.00)	7366 (1.00)	78714 (9.70)	0 (0.00)
<i>b4tim off</i>	4065 (1.00)	0 (654085.00)	321 (1.00)	4869 (1.51)	395143 (1.93)	1 (1.00)
<i>tgktim off</i>	4065 (1.00)	0 (654085.00)	321 (1.00)	4869 (1.00)	0 (763506.00)	0 (0.00)
<i>tgenr off</i>	4065 (1.00)	0 (654085.00)	321 (1.00)	4824 (1.01)	92823 (8.23)	0 (0.00)
<i>chi567 off</i>	4065 (1.00)	0 (654085.00)	321 (1.00)	3063 (1.57)	511542 (1.49)	0 (0.00)
<i>npitg</i>	3909 (1.04)	48590 (13.46)	322 (1.00)	3063 (1.00)	54567 (13.99)	0 (0.00)
<i>verrng off</i>	3909 (1.00)	0 (654085.00)	321 (1.00)	2614 (1.17)	321757 (2.37)	0 (0.00)
<i>chi5max off</i>	3909 (1.00)	0 (654085.00)	321 (1.00)	2526 (1.03)	225902 (3.38)	0 (0.00)
<i>angli off</i>	3909 (1.00)	0 (654085.00)	321 (1.00)	2519 (1.00)	53576 (14.25)	0 (0.00)
<i>ALLKfit off</i>	3909 (1.00)	0 (654085.00)	321 (1.00)	2069 (1.22)	291298 (2.62)	0 (0.00)
<i>tpics off</i>	3909 (1.00)	0 (654085.00)	321 (1.00)	1884 (1.10)	98026 (7.79)	0 (0.00)
<i>epionk off</i>	3909 (1.00)	0 (654085.00)	321 (1.00)	1854 (1.02)	21959 (34.77)	0 (0.00)
<i>ccdpul off</i>	3909 (1.00)	0 (654085.00)	321 (1.00)	169 (10.97)	613958 (1.24)	1 (1.00)
<i>timkf off</i>	3909 (1.00)	0 (654085.00)	321 (1.00)	120 (1.41)	553685 (1.38)	3 (3.00)
<i>DELCO</i> 949	2108 (1.85)	183889 (3.56)	321 (1.00)	38 (3.16)	219266 (3.48)	0 (0.00)
<i>cktrs cur</i>	1301 (1.62)	208742 (3.13)	325 (1.01)	15 (2.53)	267206 (2.86)	0 (0.00)
<i>cktai cur</i>	1159 (1.12)	135216 (4.84)	327 (1.02)	8 (1.88)	170693 (4.47)	0 (0.00)
<i>pv(nottg) cur</i>	765 (1.52)	286409 (2.28)	363 (1.13)	0 (8.00)	327438 (2.33)	0 (0.00)
<i>piflg cur</i>	763 (1.00)	15434 (42.38)	321 (1.00)	0 (0.00)	25958 (29.41)	0 (0.00)
<i>ev502 cur</i>	623 (1.22)	174904 (3.74)	321 (1.00)	0 (0.00)	218072 (3.50)	0 (0.00)
<i>elveto cur</i>	576 (1.08)	135422 (4.83)	321 (1.00)	0 (0.00)	184712 (4.13)	0 (0.00)
<i>tdfool cur</i>	574 (1.00)	95454 (6.85)	321 (1.00)	0 (0.00)	134180 (5.69)	0 (0.00)
<i>tdvarnn02 cur</i>	479 (1.20)	213045 (3.07)	321 (1.00)	0 (0.00)	283368 (2.69)	0 (0.00)
TD cur	479 (1.00)	345081 (1.90)	321 (1.00)	0 (0.00)	433258 (1.76)	0 (0.00)
<i>cpitrs · cpitail</i>	465 (1.03)	356137 (1.84)	335 (1.04)	0 (0.00)	444723 (1.72)	0 (0.00)
<i>b4dedx cur</i>	321 (1.45)	196446 (3.33)	465 (1.45)	0 (0.00)	212707 (3.59)	0 (0.00)
Total Rej.		1.45			0.00	

Table 13: 1-Beam Normalization. Branch no. 5

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>BOX</i>	654085 (0.00)	0 (654085.00)	0 (0.00)	763506 (0.00)	0 (763506.00)	0 (0.00)
<i>rsdedxmax cur</i>	654085 (1.00)	0 (654085.00)	0 (0.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rsdedxcl 949</i>	654085 (1.00)	0 (654085.00)	0 (0.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rslike cur</i>	654085 (1.00)	0 (654085.00)	0 (0.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rngmom cur</i>	506041 (1.29)	148044 (4.42)	0 (0.00)	540193 (1.41)	223313 (3.42)	0 (0.00)
<i>BOX</i>	506041 (1.00)	0 (654085.00)	0 (0.00)	540193 (1.00)	0 (763506.00)	0 (0.00)
<i>icode14 cur</i>	506041 (1.00)	3 (218028.00)	0 (0.00)	540193 (1.00)	4 (190877.00)	0 (0.00)
<i>cos3d cur</i>	461701 (1.10)	51196 (12.78)	0 (0.00)	491709 (1.10)	58256 (13.11)	0 (0.00)
<i>layv4</i>	461701 (1.00)	0 (654085.00)	0 (0.00)	491709 (1.00)	0 (763506.00)	0 (0.00)
<i>zfrf cur</i>	461415 (1.00)	648 (1009.39)	0 (0.00)	491386 (1.00)	828 (922.11)	0 (0.00)
<i>zutout cur</i>	461128 (1.00)	557 (1174.30)	0 (0.00)	491085 (1.00)	592 (1289.71)	0 (0.00)
FIDUCIAL 949	461128 (1.00)	52109 (12.55)	0 (0.00)	491085 (1.00)	59345 (12.87)	0 (0.00)
<i>utcqual 949</i>	342630 (1.35)	208256 (3.14)	0 (0.00)	407397 (1.21)	153963 (4.96)	0 (0.00)
<i>rsdedxcl 949</i>	342630 (1.00)	0 (654085.00)	0 (0.00)	407397 (1.00)	0 (763506.00)	0 (0.00)
<i>rsdedxmax cur</i>	342630 (1.00)	0 (654085.00)	0 (0.00)	407397 (1.00)	0 (763506.00)	0 (0.00)
<i>rslike cur</i>	342630 (1.00)	0 (654085.00)	0 (0.00)	407397 (1.00)	0 (763506.00)	0 (0.00)
<i>tgktim off</i>	342630 (1.00)	0 (654085.00)	0 (0.00)	407397 (1.00)	0 (763506.00)	0 (0.00)
<i>rngmom cur</i>	342630 (1.00)	148044 (4.42)	0 (0.00)	407397 (1.00)	223313 (3.42)	0 (0.00)
<i>prrf1 949</i>	205095 (1.67)	253120 (2.58)	0 (0.00)	396237 (1.03)	24547 (31.10)	0 (0.00)
<i>prrfz 949</i>	171907 (1.19)	102690 (6.37)	0 (0.00)	374122 (1.06)	51815 (14.74)	0 (0.00)
PRRF 949	171907 (1.00)	323368 (2.02)	0 (0.00)	374122 (1.00)	73789 (10.35)	0 (0.00)
<i>rtghi cur</i>	171766 (1.00)	1813 (360.77)	0 (0.00)	373591 (1.00)	2460 (310.37)	0 (0.00)
<i>etghi cur</i>	168828 (1.02)	14056 (46.53)	0 (0.00)	366275 (1.02)	18464 (41.35)	0 (0.00)
<i>tgdedx1 cur</i>	132090 (1.28)	121866 (5.37)	0 (0.00)	285444 (1.28)	136457 (5.60)	0 (0.00)
<i>tgdedx2 cur</i>	122356 (1.08)	56131 (11.65)	0 (0.00)	259441 (1.10)	63770 (11.97)	0 (0.00)
tgdedx cur	122356 (1.00)	185457 (3.53)	0 (0.00)	259441 (1.00)	210833 (3.62)	0 (0.00)
<i>tglike1 cur</i>	111768 (1.09)	95963 (6.82)	0 (0.00)	236057 (1.10)	108578 (7.03)	0 (0.00)
<i>tglike2 cur</i>	105714 (1.06)	84235 (7.76)	0 (0.00)	222936 (1.06)	97907 (7.80)	0 (0.00)
TGLIKE cur	105714 (1.00)	128668 (5.08)	0 (0.00)	222936 (1.00)	147246 (5.19)	0 (0.00)
<i>tgdb4 cur</i>	97845 (1.08)	53110 (12.32)	0 (0.00)	206294 (1.08)	60906 (12.54)	0 (0.00)
<i>tgdb4tip cur</i>	73438 (1.33)	184461 (3.55)	0 (0.00)	154290 (1.34)	208039 (3.67)	0 (0.00)
<i>tgdvxtip cur</i>	63488 (1.16)	112127 (5.83)	0 (0.00)	132660 (1.16)	125191 (6.10)	0 (0.00)
<i>tgdvxpi cur</i>	59332 (1.07)	76314 (8.57)	0 (0.00)	123497 (1.07)	86718 (8.80)	0 (0.00)
TGB4 cur	59332 (1.00)	278240 (2.35)	0 (0.00)	123497 (1.00)	314260 (2.43)	0 (0.00)
<i>pigap cur</i>	57181 (1.04)	47738 (13.70)	0 (0.00)	116777 (1.06)	68694 (11.11)	0 (0.00)
KIN 949	57181 (1.00)	596904 (1.10)	0 (0.00)	116777 (1.00)	646729 (1.18)	0 (0.00)
<i>tgpv cur</i>	41751 (1.37)	199153 (3.28)	0 (0.00)	85384 (1.37)	229186 (3.33)	0 (0.00)
<i>bwtrs cur</i>	37108 (1.13)	147119 (4.45)	0 (0.00)	75772 (1.13)	176329 (4.33)	0 (0.00)
<i>b4trs cur</i>	33791 (1.10)	143751 (4.55)	0 (0.00)	68939 (1.10)	170529 (4.48)	0 (0.00)
<i>b4ccd cur</i>	33540 (1.01)	7445 (87.86)	0 (0.00)	68468 (1.01)	9165 (83.31)	0 (0.00)
<i>tgqualt 949</i>	33540 (1.00)	0 (654085.00)	0 (0.00)	62822 (1.09)	54567 (13.99)	0 (0.00)
<i>timcon cur</i>	33306 (1.01)	7776 (84.12)	0 (0.00)	62420 (1.01)	8971 (85.11)	0 (0.00)
<i>epity 949</i>	33270 (1.00)	17722 (36.91)	0 (0.00)	62350 (1.00)	19737 (38.68)	0 (0.00)
<i>tger 949</i>	33258 (1.00)	18275 (35.79)	0 (0.00)	62325 (1.00)	20789 (36.73)	0 (0.00)
<i>targf 949</i>	31915 (1.04)	88509 (7.39)	0 (0.00)	59585 (1.05)	105229 (7.26)	0 (0.00)
<i>ticcon 949</i>	31915 (1.00)	95 (6885.11)	0 (0.00)	59584 (1.00)	117 (6525.69)	0 (0.00)
<i>dtgttp 949</i>	31885 (1.00)	577 (1133.60)	0 (0.00)	59584 (1.00)	653 (1169.23)	0 (0.00)
<i>rtdif 949</i>	31338 (1.02)	16163 (40.47)	0 (0.00)	58648 (1.02)	17941 (42.56)	0 (0.00)
<i>epimaxk 949</i>	30812 (1.02)	41675 (15.69)	0 (0.00)	57529 (1.02)	46984 (16.25)	0 (0.00)
<i>drp 949</i>	30604 (1.01)	12500 (52.33)	0 (0.00)	57136 (1.01)	13627 (56.03)	0 (0.00)
<i>phivtx1 949</i>	26249 (1.17)	144733 (4.52)	0 (0.00)	48421 (1.18)	168683 (4.53)	0 (0.00)
<i>eiccon 949</i>	25325 (1.04)	28883 (22.65)	0 (0.00)	47335 (1.02)	32211 (23.70)	0 (0.00)
<i>opsveto 949</i>	20754 (1.22)	202745 (3.23)	0 (0.00)	39658 (1.19)	233980 (3.26)	0 (0.00)
<i>kic 949</i>	17961 (1.16)	130535 (5.01)	0 (0.00)	34870 (1.14)	153781 (4.96)	0 (0.00)
<i>tggeo cur</i>	14855 (1.21)	275388 (2.38)	0 (0.00)	29031 (1.20)	319091 (2.39)	0 (0.00)

continued on next page

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>tdedge</i> 949	14274 (1.04)	94323 (6.93)	0 (0.00)	28133 (1.03)	108151 (7.06)	0 (0.00)
<i>tgzfool</i> 949	14273 (1.00)	10104 (64.74)	0 (0.00)	28119 (1.00)	12333 (61.91)	0 (0.00)
<i>upvtrs cur</i>	12833 (1.11)	54697 (11.96)	0 (0.00)	25202 (1.12)	60718 (12.57)	0 (0.00)
<i>rvtrs cur</i>	12776 (1.00)	13274 (49.28)	0 (0.00)	25101 (1.00)	15533 (49.15)	0 (0.00)
<i>tgtcon cur</i>	11374 (1.12)	54148 (12.08)	0 (0.00)	22417 (1.12)	60727 (12.57)	0 (0.00)
<i>b4etcon cur</i>	11134 (1.02)	20825 (31.41)	0 (0.00)	21921 (1.02)	23606 (32.34)	0 (0.00)
<i>b4ekz cur</i>	4065 (2.74)	451738 (1.45)	15 (15.00)	7366 (2.98)	521719 (1.46)	0 (0.00)
<i>b4ekzic cur</i>	4065 (1.00)	69489 (9.41)	0 (0.00)	7366 (1.00)	78714 (9.70)	0 (0.00)
<i>b4tim off</i>	4065 (1.00)	0 (654085.00)	0 (0.00)	4869 (1.51)	395143 (1.93)	0 (0.00)
<i>tgktim off</i>	4065 (1.00)	0 (654085.00)	0 (0.00)	4869 (1.00)	0 (763506.00)	0 (0.00)
<i>tgenr off</i>	4065 (1.00)	0 (654085.00)	0 (0.00)	4824 (1.01)	92823 (8.23)	0 (0.00)
<i>chi567 off</i>	4065 (1.00)	0 (654085.00)	0 (0.00)	3063 (1.57)	511542 (1.49)	0 (0.00)
<i>npitg</i>	3909 (1.04)	48590 (13.46)	0 (0.00)	3063 (1.00)	54567 (13.99)	0 (0.00)
<i>verrng off</i>	3909 (1.00)	0 (654085.00)	0 (0.00)	2614 (1.17)	321757 (2.37)	0 (0.00)
<i>chi5max off</i>	3909 (1.00)	0 (654085.00)	0 (0.00)	2526 (1.03)	225902 (3.38)	0 (0.00)
<i>angli off</i>	3909 (1.00)	0 (654085.00)	0 (0.00)	2519 (1.00)	53576 (14.25)	0 (0.00)
<i>ALLKfit off</i>	3909 (1.00)	0 (654085.00)	0 (0.00)	2069 (1.22)	291298 (2.62)	0 (0.00)
<i>tpics off</i>	3909 (1.00)	0 (654085.00)	0 (0.00)	1884 (1.10)	98026 (7.79)	0 (0.00)
<i>epionk off</i>	3909 (1.00)	0 (654085.00)	0 (0.00)	1854 (1.02)	21959 (34.77)	0 (0.00)
<i>ccdpul off</i>	3909 (1.00)	0 (654085.00)	0 (0.00)	169 (10.97)	613958 (1.24)	0 (0.00)
<i>timkf off</i>	3909 (1.00)	0 (654085.00)	0 (0.00)	120 (1.41)	553685 (1.38)	0 (0.00)
<i>DELCO</i> 949	2108 (1.85)	183889 (3.56)	1 (1.00)	38 (3.16)	219266 (3.48)	0 (0.00)
<i>cktrs cur</i>	1301 (1.62)	208742 (3.13)	3 (3.00)	15 (2.53)	267206 (2.86)	0 (0.00)
<i>cktai cur</i>	1159 (1.12)	135216 (4.84)	1 (1.00)	8 (1.88)	170693 (4.47)	0 (0.00)
<i>pv(nottg) cur</i>	765 (1.52)	286409 (2.28)	1 (1.00)	0 (8.00)	327438 (2.33)	0 (0.00)
<i>piflg cur</i>	763 (1.00)	15434 (42.38)	0 (0.00)	0 (0.00)	25958 (29.41)	0 (0.00)
<i>ev502 cur</i>	623 (1.22)	174904 (3.74)	0 (0.00)	0 (0.00)	218072 (3.50)	0 (0.00)
<i>elveto cur</i>	576 (1.08)	135422 (4.83)	0 (0.00)	0 (0.00)	184712 (4.13)	0 (0.00)
<i>tdfool cur</i>	574 (1.00)	95454 (6.85)	0 (0.00)	0 (0.00)	134180 (5.69)	0 (0.00)
<i>tdvarnn02 cur</i>	479 (1.20)	213045 (3.07)	0 (0.00)	0 (0.00)	283368 (2.69)	0 (0.00)
TD cur	479 (1.00)	345081 (1.90)	0 (0.00)	0 (0.00)	433258 (1.76)	0 (0.00)
<i>b4dedx</i>	144 (3.33)	457639 (1.43)	14 (14.00)	0 (0.00)	550799 (1.39)	0 (0.00)
<i>cpitrs cur</i>	0 (144.00)	297310 (2.20)	121 (121.00)	0 (0.00)	318061 (2.40)	0 (0.00)
<i>cpitail cur</i>	0 (0.00)	52804 (12.39)	0 (0.00)	0 (0.00)	56586 (13.49)	0 (0.00)
Total Rej.		144.00			0.00	

Table 14: 2-Beam Rejection. Branch no. 1

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>BOX</i>	654085 (0.00)	0 (654085.00)	265 (1.00)	763506 (0.00)	0 (763506.00)	266 (1.00)
<i>rsdedxmax cur</i>	654085 (1.00)	0 (654085.00)	265 (1.00)	763506 (1.00)	0 (763506.00)	266 (1.00)
<i>rsdedxcl 949</i>	654085 (1.00)	0 (654085.00)	265 (1.00)	763506 (1.00)	0 (763506.00)	266 (1.00)
<i>rslike cur</i>	654085 (1.00)	0 (654085.00)	265 (1.00)	763506 (1.00)	0 (763506.00)	266 (1.00)
<i>rngmom cur</i>	506041 (1.29)	148044 (4.42)	277 (1.05)	540193 (1.41)	223313 (3.42)	276 (1.04)
<i>pv(nottg) cur</i>	269155 (1.88)	286409 (2.28)	1961 (7.40)	287589 (1.88)	327438 (2.33)	1925 (7.24)
<i>piflg cur</i>	268211 (1.00)	15434 (42.38)	265 (1.00)	286486 (1.00)	25958 (29.41)	266 (1.00)
<i>ev502 cur</i>	212773 (1.26)	174904 (3.74)	265 (1.00)	227219 (1.26)	218072 (3.50)	266 (1.00)
<i>elveto cur</i>	194545 (1.09)	135422 (4.83)	265 (1.00)	207558 (1.09)	184712 (4.13)	266 (1.00)
<i>tdfool cur</i>	194076 (1.00)	95454 (6.85)	265 (1.00)	207057 (1.00)	134180 (5.69)	266 (1.00)
<i>tdvarnn02 cur</i>	158823 (1.22)	213045 (3.07)	265 (1.00)	169436 (1.22)	283368 (2.69)	266 (1.00)
TD cur	158823 (1.00)	345081 (1.90)	265 (1.00)	169436 (1.00)	433258 (1.76)	266 (1.00)
<i>b4dedx cur</i>	83537 (1.90)	196446 (3.33)	283 (1.07)	89159 (1.90)	212707 (3.59)	282 (1.06)
<i>tgqualt 949</i>	83537 (1.00)	0 (654085.00)	265 (1.00)	81621 (1.09)	54567 (13.99)	285 (1.07)
<i>timcon cur</i>	82580 (1.01)	7776 (84.12)	268 (1.01)	80724 (1.01)	8971 (85.11)	269 (1.01)
<i>DELCO 949</i>	22122 (3.73)	470196 (1.39)	394 (1.49)	21753 (3.71)	544240 (1.40)	395 (1.48)
<i>tger 949</i>	20066 (1.10)	18275 (35.79)	297 (1.12)	20280 (1.07)	20789 (36.73)	289 (1.09)
<i>tgzfool 949</i>	19758 (1.02)	10104 (64.74)	271 (1.02)	20044 (1.01)	12333 (61.91)	270 (1.02)
<i>upvtrs cur</i>	17573 (1.12)	54697 (11.96)	277 (1.05)	17820 (1.12)	60718 (12.57)	278 (1.05)
<i>rvtrs cur</i>	17204 (1.02)	13274 (49.28)	280 (1.06)	17464 (1.02)	15533 (49.15)	281 (1.06)
<i>b4etcon cur</i>	16805 (1.02)	20825 (31.41)	270 (1.02)	17056 (1.02)	23606 (32.34)	273 (1.03)
<i>b4trs · b4ccd</i>	13694 (1.23)	506082 (1.29)	1141 (4.31)	13944 (1.22)	587864 (1.30)	1137 (4.27)
<i>cpitrs cur</i>	3720 (3.68)	297310 (2.20)	3439 (12.98)	3789 (3.68)	318061 (2.40)	3455 (12.99)
<i>cpitail cur</i>	3708 (1.00)	52804 (12.39)	268 (1.01)	3779 (1.00)	56586 (13.49)	269 (1.01)
<i>1.1 < b4ars_atc < 5.0</i>	2679 (1.38)	351097 (1.86)	519 (1.96)	2732 (1.38)	404250 (1.89)	522 (1.96)
<i>cktrs cur</i>	314 (8.53)	208742 (3.13)	1110 (4.19)	314 (8.70)	267206 (2.86)	1118 (4.20)
<i>cktai cur</i>	265 (1.18)	135216 (4.84)	314 (1.18)	266 (1.18)	170693 (4.47)	314 (1.18)
Total Rej.		10.11			10.27	

Table 15: 2-Beam Rejection. Branch no. 2

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>BOX</i>	654085 (0.00)	0 (654085.00)	152 (1.00)	763506 (0.00)	0 (763506.00)	155 (1.00)
<i>rsdedxmax cur</i>	654085 (1.00)	0 (654085.00)	152 (1.00)	763506 (1.00)	0 (763506.00)	155 (1.00)
<i>rsdedxcl 949</i>	654085 (1.00)	0 (654085.00)	152 (1.00)	763506 (1.00)	0 (763506.00)	155 (1.00)
<i>rslike cur</i>	654085 (1.00)	0 (654085.00)	152 (1.00)	763506 (1.00)	0 (763506.00)	155 (1.00)
<i>rngmom cur</i>	506041 (1.29)	148044 (4.42)	155 (1.02)	540193 (1.41)	223313 (3.42)	159 (1.03)
<i>pv(nottg) cur</i>	269155 (1.88)	286409 (2.28)	1681 (11.06)	287589 (1.88)	327438 (2.33)	1700 (10.97)
<i>piflg cur</i>	268211 (1.00)	15434 (42.38)	152 (1.00)	286486 (1.00)	25958 (29.41)	155 (1.00)
<i>ev502 cur</i>	212773 (1.26)	174904 (3.74)	152 (1.00)	227219 (1.26)	218072 (3.50)	155 (1.00)
<i>elveto cur</i>	194545 (1.09)	135422 (4.83)	152 (1.00)	207558 (1.09)	184712 (4.13)	155 (1.00)
<i>tdfool cur</i>	194076 (1.00)	95454 (6.85)	152 (1.00)	207057 (1.00)	134180 (5.69)	155 (1.00)
<i>tdvarnn02 cur</i>	158823 (1.22)	213045 (3.07)	152 (1.00)	169436 (1.22)	283368 (2.69)	155 (1.00)
TD cur	158823 (1.00)	345081 (1.90)	152 (1.00)	169436 (1.00)	433258 (1.76)	155 (1.00)
<i>b4dedx cur</i>	83537 (1.90)	196446 (3.33)	156 (1.03)	89159 (1.90)	212707 (3.59)	158 (1.02)
<i>tgqualt 949</i>	83537 (1.00)	0 (654085.00)	152 (1.00)	81621 (1.09)	54567 (13.99)	164 (1.06)
<i>timcon cur</i>	82580 (1.01)	7776 (84.12)	153 (1.01)	80724 (1.01)	8971 (85.11)	156 (1.01)
<i>DELCO 949</i>	22122 (3.73)	470196 (1.39)	251 (1.65)	21753 (3.71)	544240 (1.40)	252 (1.63)
<i>tger 949</i>	20066 (1.10)	18275 (35.79)	155 (1.02)	20280 (1.07)	20789 (36.73)	156 (1.01)
<i>tgzfool 949</i>	19758 (1.02)	10104 (64.74)	154 (1.01)	20044 (1.01)	12333 (61.91)	157 (1.01)
<i>upvtrs cur</i>	17573 (1.12)	54697 (11.96)	158 (1.04)	17820 (1.12)	60718 (12.57)	161 (1.04)
<i>rvtrs cur</i>	17204 (1.02)	13274 (49.28)	159 (1.05)	17464 (1.02)	15533 (49.15)	161 (1.04)
<i>b4etcon cur</i>	16805 (1.02)	20825 (31.41)	153 (1.01)	17056 (1.02)	23606 (32.34)	156 (1.01)
<i>b4trs · b4ccd</i>	13694 (1.23)	506082 (1.29)	1532 (10.08)	13944 (1.22)	587864 (1.30)	1521 (9.81)
<i>cktrs cur</i>	10404 (1.32)	208742 (3.13)	161 (1.06)	10592 (1.32)	267206 (2.86)	164 (1.06)
<i>cktaii cur</i>	10276 (1.01)	135216 (4.84)	154 (1.01)	10463 (1.01)	170693 (4.47)	158 (1.02)
<i>b4ars_atc < 1.1</i>	5872 (1.75)	308467 (2.12)	343 (2.26)	6047 (1.73)	365300 (2.09)	343 (2.21)
<i>bwtrs cur</i>	285 (20.60)	147119 (4.45)	245 (1.61)	291 (20.78)	176329 (4.33)	246 (1.59)
<i>cpttrs cur</i>	153 (1.86)	297310 (2.20)	253 (1.66)	156 (1.87)	318061 (2.40)	256 (1.65)
<i>cpitail cur</i>	152 (1.01)	52804 (12.39)	153 (1.01)	155 (1.01)	56586 (13.49)	156 (1.01)
Total Rej.		38.63			39.01	

Table 16: 2-Beam Normalization. Branch no. 1

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>BOX</i>	654085 (0.00)	0 (654085.00)	7 (1.00)	763506 (0.00)	0 (763506.00)	0 (0.00)
<i>rsdedxmax cur</i>	654085 (1.00)	0 (654085.00)	7 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rsdedxcl 949</i>	654085 (1.00)	0 (654085.00)	7 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rslike cur</i>	654085 (1.00)	0 (654085.00)	7 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>pv(nottg) cur</i>	367676 (1.78)	286409 (2.28)	69 (9.86)	436068 (1.75)	327438 (2.33)	2 (2.00)
<i>tgqualt 949</i>	367676 (1.00)	0 (654085.00)	7 (1.00)	407068 (1.07)	54567 (13.99)	0 (0.00)
<i>timcon cur</i>	364090 (1.01)	7776 (84.12)	7 (1.00)	403347 (1.01)	8971 (85.11)	0 (0.00)
<i>epitg 949</i>	357613 (1.02)	17722 (36.91)	7 (1.00)	395836 (1.02)	19737 (38.68)	0 (0.00)
<i>tger 949</i>	347310 (1.03)	18275 (35.79)	7 (1.00)	388695 (1.02)	20789 (36.73)	0 (0.00)
<i>ticcon 949</i>	347300 (1.00)	95 (6885.11)	7 (1.00)	388684 (1.00)	117 (6525.69)	0 (0.00)
<i>dtgtp 949</i>	347098 (1.00)	577 (1133.60)	7 (1.00)	388631 (1.00)	653 (1169.23)	0 (0.00)
<i>rtdif 949</i>	337138 (1.03)	16163 (40.47)	8 (1.14)	378396 (1.03)	17941 (42.56)	0 (0.00)
<i>drp 949</i>	331122 (1.02)	12500 (52.33)	7 (1.00)	371789 (1.02)	13627 (56.03)	0 (0.00)
<i>eiccon 949</i>	320203 (1.03)	28883 (22.65)	7 (1.00)	362833 (1.02)	32211 (23.70)	0 (0.00)
<i>kic 949</i>	276216 (1.16)	130535 (5.01)	7 (1.00)	318259 (1.14)	153781 (4.96)	0 (0.00)
<i>tggeo cur</i>	229921 (1.20)	275388 (2.38)	14 (2.00)	269900 (1.18)	319091 (2.39)	0 (0.00)
<i>tgzfool 949</i>	228272 (1.01)	10104 (64.74)	7 (1.00)	268092 (1.01)	12333 (61.91)	0 (0.00)
<i>upvtrs cur</i>	206107 (1.11)	54697 (11.96)	7 (1.00)	244026 (1.10)	60718 (12.57)	0 (0.00)
<i>rvtrs cur</i>	204148 (1.01)	13274 (49.28)	7 (1.00)	241998 (1.01)	15533 (49.15)	0 (0.00)
<i>tgtcon cur</i>	192746 (1.06)	54148 (12.08)	8 (1.14)	229201 (1.06)	60727 (12.57)	0 (0.00)
<i>b4etcon cur</i>	186942 (1.03)	20825 (31.41)	7 (1.00)	222642 (1.03)	23606 (32.34)	0 (0.00)
<i>b4tim off</i>	186942 (1.00)	0 (654085.00)	7 (1.00)	80921 (2.75)	395143 (1.93)	0 (0.00)
<i>tgktim off</i>	186942 (1.00)	0 (654085.00)	7 (1.00)	80921 (1.00)	0 (763506.00)	0 (0.00)
<i>tgenr off</i>	186942 (1.00)	0 (654085.00)	7 (1.00)	78888 (1.03)	92823 (8.23)	0 (0.00)
<i>chi567 off</i>	186942 (1.00)	0 (654085.00)	7 (1.00)	27978 (2.82)	511542 (1.49)	0 (0.00)
<i>npitg</i>	183405 (1.02)	48590 (13.46)	8 (1.14)	27978 (1.00)	54567 (13.99)	0 (0.00)
<i>verrng off</i>	183405 (1.00)	0 (654085.00)	7 (1.00)	20194 (1.39)	321757 (2.37)	0 (0.00)
<i>chi5max off</i>	183405 (1.00)	0 (654085.00)	7 (1.00)	19326 (1.04)	225902 (3.38)	0 (0.00)
<i>angli off</i>	183405 (1.00)	0 (654085.00)	7 (1.00)	19258 (1.00)	53576 (14.25)	0 (0.00)
<i>ALLKfit off</i>	183405 (1.00)	0 (654085.00)	7 (1.00)	12212 (1.58)	291298 (2.62)	0 (0.00)
<i>tpics off</i>	183405 (1.00)	0 (654085.00)	7 (1.00)	10691 (1.14)	98026 (7.79)	0 (0.00)
<i>epionk off</i>	183405 (1.00)	0 (654085.00)	7 (1.00)	10360 (1.03)	21959 (34.77)	0 (0.00)
<i>ccdpul off</i>	183405 (1.00)	0 (654085.00)	7 (1.00)	2611 (3.97)	613958 (1.24)	2 (2.00)
<i>timkf off</i>	183405 (1.00)	0 (654085.00)	7 (1.00)	1792 (1.46)	553685 (1.38)	0 (0.00)
<i>DELCO 949</i>	22672 (8.09)	470196 (1.39)	1152 (164.57)	494 (3.63)	544240 (1.40)	21 (21.00)
<i>b4dedx cur</i>	21947 (1.03)	196446 (3.33)	7 (1.00)	491 (1.01)	212707 (3.59)	0 (0.00)
<i>cpitrs cur</i>	14386 (1.53)	297310 (2.20)	7 (1.00)	462 (1.06)	318061 (2.40)	0 (0.00)
<i>cpitail cur</i>	14372 (1.00)	52804 (12.39)	7 (1.00)	462 (1.00)	56586 (13.49)	0 (0.00)
<i>BOX</i>	14372 (1.00)	0 (654085.00)	7 (1.00)	462 (1.00)	0 (763506.00)	0 (0.00)
<i>icode114 cur</i>	14372 (1.00)	3 (218028.00)	7 (1.00)	462 (1.00)	4 (190877.00)	0 (0.00)
<i>cos3d cur</i>	13666 (1.05)	51196 (12.78)	7 (1.00)	451 (1.02)	58256 (13.11)	0 (0.00)
<i>layv4</i>	13666 (1.00)	0 (654085.00)	7 (1.00)	451 (1.00)	0 (763506.00)	0 (0.00)
<i>zfrf cur</i>	13662 (1.00)	648 (1009.39)	7 (1.00)	449 (1.00)	828 (922.11)	0 (0.00)
<i>zutout cur</i>	13638 (1.00)	557 (1174.30)	7 (1.00)	449 (1.00)	592 (1289.71)	0 (0.00)
FIDUCIAL 949	13638 (1.00)	52109 (12.55)	7 (1.00)	449 (1.00)	59345 (12.87)	0 (0.00)
<i>utcqual 949</i>	10612 (1.29)	208256 (3.14)	7 (1.00)	358 (1.25)	153963 (4.96)	0 (0.00)
<i>rsdedxcl 949</i>	10612 (1.00)	0 (654085.00)	7 (1.00)	358 (1.00)	0 (763506.00)	0 (0.00)
<i>rsdedxmax cur</i>	10612 (1.00)	0 (654085.00)	7 (1.00)	358 (1.00)	0 (763506.00)	0 (0.00)
<i>rslike cur</i>	10612 (1.00)	0 (654085.00)	7 (1.00)	358 (1.00)	0 (763506.00)	0 (0.00)
<i>tgktim off</i>	10612 (1.00)	0 (654085.00)	7 (1.00)	358 (1.00)	0 (763506.00)	0 (0.00)
<i>rngmom cur</i>	2712 (3.91)	148044 (4.42)	7 (1.00)	8 (44.75)	223313 (3.42)	0 (0.00)
<i>prrf1 949</i>	1518 (1.79)	253120 (2.58)	7 (1.00)	8 (1.00)	24547 (31.10)	0 (0.00)
<i>prrfz 949</i>	1304 (1.16)	102690 (6.37)	7 (1.00)	7 (1.14)	51815 (14.74)	0 (0.00)
PRRF 949	1304 (1.00)	323368 (2.02)	7 (1.00)	7 (1.00)	73789 (10.35)	0 (0.00)
<i>rtghi cur</i>	1303 (1.00)	1813 (360.77)	7 (1.00)	7 (1.00)	2460 (310.37)	0 (0.00)

continued on next page

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>etghi cur</i>	1290 (1.01)	14056 (46.53)	7 (1.00)	7 (1.00)	18464 (41.35)	0 (0.00)
<i>tgdedx1 cur</i>	947 (1.36)	121866 (5.37)	7 (1.00)	7 (1.00)	136457 (5.60)	0 (0.00)
<i>tgdedx2 cur</i>	754 (1.26)	56131 (11.65)	7 (1.00)	7 (1.00)	63770 (11.97)	0 (0.00)
tgdedx cur	754 (1.00)	185457 (3.53)	7 (1.00)	7 (1.00)	210833 (3.62)	0 (0.00)
<i>tglike1 cur</i>	668 (1.13)	95963 (6.82)	7 (1.00)	7 (1.00)	108578 (7.03)	0 (0.00)
<i>tglike2 cur</i>	649 (1.03)	84235 (7.76)	7 (1.00)	7 (1.00)	97907 (7.80)	0 (0.00)
TGLIKE cur	649 (1.00)	128668 (5.08)	7 (1.00)	7 (1.00)	147246 (5.19)	0 (0.00)
<i>tgdb4 cur</i>	627 (1.04)	53110 (12.32)	7 (1.00)	6 (1.17)	60906 (12.54)	0 (0.00)
<i>tgdb4tip cur</i>	532 (1.18)	184461 (3.55)	7 (1.00)	6 (1.00)	208039 (3.67)	0 (0.00)
<i>tgdvxtip cur</i>	500 (1.06)	112127 (5.83)	7 (1.00)	6 (1.00)	125191 (6.10)	0 (0.00)
<i>tgdvxpi cur</i>	428 (1.17)	76314 (8.57)	7 (1.00)	6 (1.00)	86718 (8.80)	0 (0.00)
TGB4 cur	428 (1.00)	278240 (2.35)	7 (1.00)	6 (1.00)	314260 (2.43)	0 (0.00)
<i>pigap cur</i>	419 (1.02)	47738 (13.70)	7 (1.00)	6 (1.00)	68694 (11.11)	0 (0.00)
KIN 949	419 (1.00)	596904 (1.10)	7 (1.00)	6 (1.00)	646729 (1.18)	0 (0.00)
<i>piflg cur</i>	413 (1.01)	15434 (42.38)	7 (1.00)	6 (1.00)	25958 (29.41)	0 (0.00)
<i>ev502 cur</i>	332 (1.24)	174904 (3.74)	7 (1.00)	5 (1.20)	218072 (3.50)	0 (0.00)
<i>elveto cur</i>	299 (1.11)	135422 (4.83)	7 (1.00)	5 (1.00)	184712 (4.13)	0 (0.00)
<i>tdfool cur</i>	298 (1.00)	95454 (6.85)	7 (1.00)	5 (1.00)	134180 (5.69)	0 (0.00)
<i>tdvarnn02 cur</i>	250 (1.19)	213045 (3.07)	7 (1.00)	5 (1.00)	283368 (2.69)	0 (0.00)
TD cur	250 (1.00)	345081 (1.90)	7 (1.00)	5 (1.00)	433258 (1.76)	0 (0.00)
<i>cktrs · cktail</i>	83 (3.01)	417307 (1.57)	150 (21.43)	2 (2.50)	462111 (1.65)	2 (2.00)
<i>b4trs cur</i>	8 (10.38)	143751 (4.55)	75 (10.71)	0 (2.00)	170529 (4.48)	2 (2.00)
<i>b4ccd cur</i>	7 (1.14)	7445 (87.86)	8 (1.14)	0 (0.00)	9165 (83.31)	0 (0.00)
Total Rej.		11.86			2.00	

Table 17: 2-Beam Normalization. Branch no. 2

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>BOX</i>	654085 (0.00)	0 (654085.00)	2 (1.00)	763506 (0.00)	0 (763506.00)	0 (0.00)
<i>rsdedxmax cur</i>	654085 (1.00)	0 (654085.00)	2 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rsdedxcl 949</i>	654085 (1.00)	0 (654085.00)	2 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rslike cur</i>	654085 (1.00)	0 (654085.00)	2 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>pv(nottg) cur</i>	367676 (1.78)	286409 (2.28)	33 (16.50)	436068 (1.75)	327438 (2.33)	2 (2.00)
<i>tgqualt 949</i>	367676 (1.00)	0 (654085.00)	2 (1.00)	407068 (1.07)	54567 (13.99)	0 (0.00)
<i>timcon cur</i>	364090 (1.01)	7776 (84.12)	2 (1.00)	403347 (1.01)	8971 (85.11)	0 (0.00)
<i>epitg 949</i>	357613 (1.02)	17722 (36.91)	2 (1.00)	395836 (1.02)	19737 (38.68)	0 (0.00)
<i>tger 949</i>	347310 (1.03)	18275 (35.79)	2 (1.00)	388695 (1.02)	20789 (36.73)	0 (0.00)
<i>ticcon 949</i>	347300 (1.00)	95 (6885.11)	2 (1.00)	388684 (1.00)	117 (6525.69)	0 (0.00)
<i>dtgtp 949</i>	347098 (1.00)	577 (1133.60)	2 (1.00)	388631 (1.00)	653 (1169.23)	0 (0.00)
<i>rtdif 949</i>	337138 (1.03)	16163 (40.47)	2 (1.00)	378396 (1.03)	17941 (42.56)	0 (0.00)
<i>drp 949</i>	331122 (1.02)	12500 (52.33)	2 (1.00)	371789 (1.02)	13627 (56.03)	0 (0.00)
<i>eiccon 949</i>	320203 (1.03)	28883 (22.65)	2 (1.00)	362833 (1.02)	32211 (23.70)	0 (0.00)
<i>kic 949</i>	276216 (1.16)	130535 (5.01)	2 (1.00)	318259 (1.14)	153781 (4.96)	0 (0.00)
<i>tggeo cur</i>	229921 (1.20)	275388 (2.38)	3 (1.50)	269900 (1.18)	319091 (2.39)	0 (0.00)
<i>tgzfool 949</i>	228272 (1.01)	10104 (64.74)	2 (1.00)	268092 (1.01)	12333 (61.91)	0 (0.00)
<i>upvtrs cur</i>	206107 (1.11)	54697 (11.96)	2 (1.00)	244026 (1.10)	60718 (12.57)	0 (0.00)
<i>rvtrs cur</i>	204148 (1.01)	13274 (49.28)	2 (1.00)	241998 (1.01)	15533 (49.15)	0 (0.00)
<i>tgtcon cur</i>	192746 (1.06)	54148 (12.08)	4 (2.00)	229201 (1.06)	60727 (12.57)	0 (0.00)
<i>b4etcon cur</i>	186942 (1.03)	20825 (31.41)	2 (1.00)	222642 (1.03)	23606 (32.34)	0 (0.00)
<i>b4tim off</i>	186942 (1.00)	0 (654085.00)	2 (1.00)	80921 (2.75)	395143 (1.93)	0 (0.00)
<i>tgktim off</i>	186942 (1.00)	0 (654085.00)	2 (1.00)	80921 (1.00)	0 (763506.00)	0 (0.00)
<i>tgenr off</i>	186942 (1.00)	0 (654085.00)	2 (1.00)	78888 (1.03)	92823 (8.23)	0 (0.00)
<i>chi567 off</i>	186942 (1.00)	0 (654085.00)	2 (1.00)	27978 (2.82)	511542 (1.49)	0 (0.00)
<i>npitg</i>	183405 (1.02)	48590 (13.46)	2 (1.00)	27978 (1.00)	54567 (13.99)	0 (0.00)
<i>verrng off</i>	183405 (1.00)	0 (654085.00)	2 (1.00)	20194 (1.39)	321757 (2.37)	0 (0.00)
<i>chi5max off</i>	183405 (1.00)	0 (654085.00)	2 (1.00)	19326 (1.04)	225902 (3.38)	0 (0.00)
<i>angli off</i>	183405 (1.00)	0 (654085.00)	2 (1.00)	19258 (1.00)	53576 (14.25)	0 (0.00)
<i>ALLKfit off</i>	183405 (1.00)	0 (654085.00)	2 (1.00)	12212 (1.58)	291298 (2.62)	0 (0.00)
<i>tpics off</i>	183405 (1.00)	0 (654085.00)	2 (1.00)	10691 (1.14)	98026 (7.79)	0 (0.00)
<i>epionk off</i>	183405 (1.00)	0 (654085.00)	2 (1.00)	10360 (1.03)	21959 (34.77)	0 (0.00)
<i>ccdpul off</i>	183405 (1.00)	0 (654085.00)	2 (1.00)	2611 (3.97)	613958 (1.24)	0 (0.00)
<i>timkf off</i>	183405 (1.00)	0 (654085.00)	2 (1.00)	1792 (1.46)	553685 (1.38)	0 (0.00)
<i>DELCO 949</i>	22672 (8.09)	470196 (1.39)	268 (134.00)	494 (3.63)	544240 (1.40)	5 (5.00)
<i>b4dedx cur</i>	21947 (1.03)	196446 (3.33)	2 (1.00)	491 (1.01)	212707 (3.59)	0 (0.00)
<i>cpitrs cur</i>	14386 (1.53)	297310 (2.20)	2 (1.00)	462 (1.06)	318061 (2.40)	0 (0.00)
<i>cpitail cur</i>	14372 (1.00)	52804 (12.39)	2 (1.00)	462 (1.00)	56586 (13.49)	0 (0.00)
<i>BOX</i>	14372 (1.00)	0 (654085.00)	2 (1.00)	462 (1.00)	0 (763506.00)	0 (0.00)
<i>icodel14 cur</i>	14372 (1.00)	3 (218028.00)	2 (1.00)	462 (1.00)	4 (190877.00)	0 (0.00)
<i>cos3d cur</i>	13666 (1.05)	51196 (12.78)	2 (1.00)	451 (1.02)	58256 (13.11)	0 (0.00)
<i>layv4</i>	13666 (1.00)	0 (654085.00)	2 (1.00)	451 (1.00)	0 (763506.00)	0 (0.00)
<i>zfrf cur</i>	13662 (1.00)	648 (1009.39)	2 (1.00)	449 (1.00)	828 (922.11)	0 (0.00)
<i>zutout cur</i>	13638 (1.00)	557 (1174.30)	2 (1.00)	449 (1.00)	592 (1289.71)	0 (0.00)
FIDUCIAL 949	13638 (1.00)	52109 (12.55)	2 (1.00)	449 (1.00)	59345 (12.87)	0 (0.00)
<i>utcqual 949</i>	10612 (1.29)	208256 (3.14)	2 (1.00)	358 (1.25)	153963 (4.96)	0 (0.00)
<i>rsdedxcl 949</i>	10612 (1.00)	0 (654085.00)	2 (1.00)	358 (1.00)	0 (763506.00)	0 (0.00)
<i>rsdedxmax cur</i>	10612 (1.00)	0 (654085.00)	2 (1.00)	358 (1.00)	0 (763506.00)	0 (0.00)
<i>rslike cur</i>	10612 (1.00)	0 (654085.00)	2 (1.00)	358 (1.00)	0 (763506.00)	0 (0.00)
<i>tgktim off</i>	10612 (1.00)	0 (654085.00)	2 (1.00)	358 (1.00)	0 (763506.00)	0 (0.00)
<i>rngmom cur</i>	2712 (3.91)	148044 (4.42)	2 (1.00)	8 (44.75)	223313 (3.42)	0 (0.00)
<i>prrf1 949</i>	1518 (1.79)	253120 (2.58)	2 (1.00)	8 (1.00)	24547 (31.10)	0 (0.00)
<i>prrfz 949</i>	1304 (1.16)	102690 (6.37)	2 (1.00)	7 (1.14)	51815 (14.74)	0 (0.00)
PRRF 949	1304 (1.00)	323368 (2.02)	2 (1.00)	7 (1.00)	73789 (10.35)	0 (0.00)
<i>rtghi cur</i>	1303 (1.00)	1813 (360.77)	2 (1.00)	7 (1.00)	2460 (310.37)	0 (0.00)

continued on next page

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>etghi cur</i>	1290 (1.01)	14056 (46.53)	2 (1.00)	7 (1.00)	18464 (41.35)	0 (0.00)
<i>tgdedx1 cur</i>	947 (1.36)	121866 (5.37)	2 (1.00)	7 (1.00)	136457 (5.60)	0 (0.00)
<i>tgdedx2 cur</i>	754 (1.26)	56131 (11.65)	2 (1.00)	7 (1.00)	63770 (11.97)	0 (0.00)
tgdedx cur	754 (1.00)	185457 (3.53)	2 (1.00)	7 (1.00)	210833 (3.62)	0 (0.00)
<i>tglike1 cur</i>	668 (1.13)	95963 (6.82)	2 (1.00)	7 (1.00)	108578 (7.03)	0 (0.00)
<i>tglike2 cur</i>	649 (1.03)	84235 (7.76)	2 (1.00)	7 (1.00)	97907 (7.80)	0 (0.00)
TGLIKE cur	649 (1.00)	128668 (5.08)	2 (1.00)	7 (1.00)	147246 (5.19)	0 (0.00)
<i>tgdb4 cur</i>	627 (1.04)	53110 (12.32)	2 (1.00)	6 (1.17)	60906 (12.54)	0 (0.00)
<i>tgdb4tip cur</i>	532 (1.18)	184461 (3.55)	2 (1.00)	6 (1.00)	208039 (3.67)	0 (0.00)
<i>tgdvxtip cur</i>	500 (1.06)	112127 (5.83)	2 (1.00)	6 (1.00)	125191 (6.10)	0 (0.00)
<i>tgdvxpi cur</i>	428 (1.17)	76314 (8.57)	2 (1.00)	6 (1.00)	86718 (8.80)	0 (0.00)
TGB4 cur	428 (1.00)	278240 (2.35)	2 (1.00)	6 (1.00)	314260 (2.43)	0 (0.00)
<i>pigap cur</i>	419 (1.02)	47738 (13.70)	2 (1.00)	6 (1.00)	68694 (11.11)	0 (0.00)
KIN 949	419 (1.00)	596904 (1.10)	2 (1.00)	6 (1.00)	646729 (1.18)	0 (0.00)
<i>piflg cur</i>	413 (1.01)	15434 (42.38)	2 (1.00)	6 (1.00)	25958 (29.41)	0 (0.00)
<i>ev502 cur</i>	332 (1.24)	174904 (3.74)	2 (1.00)	5 (1.20)	218072 (3.50)	0 (0.00)
<i>elveto cur</i>	299 (1.11)	135422 (4.83)	2 (1.00)	5 (1.00)	184712 (4.13)	0 (0.00)
<i>tdfool cur</i>	298 (1.00)	95454 (6.85)	2 (1.00)	5 (1.00)	134180 (5.69)	0 (0.00)
<i>tdvarnn02 cur</i>	250 (1.19)	213045 (3.07)	2 (1.00)	5 (1.00)	283368 (2.69)	0 (0.00)
TD cur	250 (1.00)	345081 (1.90)	2 (1.00)	5 (1.00)	433258 (1.76)	0 (0.00)
<i>cktrs · cktail</i>	83 (3.01)	417307 (1.57)	37 (18.50)	2 (2.50)	462111 (1.65)	3 (3.00)
<i>targf 949</i>	44 (1.89)	88509 (7.39)	3 (1.50)	2 (1.00)	105229 (7.26)	0 (0.00)
<i>b4ekz cur</i>	22 (2.00)	451738 (1.45)	2 (1.00)	0 (2.00)	521719 (1.46)	0 (0.00)
<i>epimaxk 949</i>	22 (1.00)	41675 (15.69)	2 (1.00)	0 (0.00)	46984 (16.25)	0 (0.00)
<i>phivtx1 949</i>	14 (1.57)	144733 (4.52)	2 (1.00)	0 (0.00)	168683 (4.53)	0 (0.00)
<i>opsveto 949</i>	4 (3.50)	202745 (3.23)	2 (1.00)	0 (0.00)	233980 (3.26)	0 (0.00)
<i>tdedge 949</i>	4 (1.00)	94323 (6.93)	2 (1.00)	0 (0.00)	108151 (7.06)	0 (0.00)
<i>tgcclpf null</i>	4 (1.00)	0 (654085.00)	2 (1.00)	0 (0.00)	0 (763506.00)	0 (0.00)
<i>rtghi cur</i>	4 (1.00)	1813 (360.77)	2 (1.00)	0 (0.00)	2460 (310.37)	0 (0.00)
<i>etghi cur</i>	4 (1.00)	14056 (46.53)	2 (1.00)	0 (0.00)	18464 (41.35)	0 (0.00)
<i>tgdedx1 cur</i>	4 (1.00)	121866 (5.37)	2 (1.00)	0 (0.00)	136457 (5.60)	0 (0.00)
<i>tgdedx2 cur</i>	4 (1.00)	56131 (11.65)	2 (1.00)	0 (0.00)	63770 (11.97)	0 (0.00)
tgdedx cur	4 (1.00)	185457 (3.53)	2 (1.00)	0 (0.00)	210833 (3.62)	0 (0.00)
<i>tglike1 cur</i>	4 (1.00)	95963 (6.82)	2 (1.00)	0 (0.00)	108578 (7.03)	0 (0.00)
<i>tglike2 cur</i>	4 (1.00)	84235 (7.76)	2 (1.00)	0 (0.00)	97907 (7.80)	0 (0.00)
TGLIKE cur	4 (1.00)	128668 (5.08)	2 (1.00)	0 (0.00)	147246 (5.19)	0 (0.00)
<i>tgdb4 cur</i>	4 (1.00)	53110 (12.32)	2 (1.00)	0 (0.00)	60906 (12.54)	0 (0.00)
<i>tgdb4tip cur</i>	4 (1.00)	184461 (3.55)	2 (1.00)	0 (0.00)	208039 (3.67)	0 (0.00)
<i>tgdvxtip cur</i>	4 (1.00)	112127 (5.83)	2 (1.00)	0 (0.00)	125191 (6.10)	0 (0.00)
<i>tgdvxpi cur</i>	4 (1.00)	76314 (8.57)	2 (1.00)	0 (0.00)	86718 (8.80)	0 (0.00)
TGB4 cur	4 (1.00)	278240 (2.35)	2 (1.00)	0 (0.00)	314260 (2.43)	0 (0.00)
<i>pigap cur</i>	4 (1.00)	47738 (13.70)	2 (1.00)	0 (0.00)	68694 (11.11)	0 (0.00)
TGKIN	4 (1.00)	416178 (1.57)	2 (1.00)	0 (0.00)	481429 (1.59)	0 (0.00)
<i>tgpv cur</i>	2 (2.00)	199153 (3.28)	4 (2.00)	0 (0.00)	229186 (3.33)	0 (0.00)
Total Rej.		41.50			2.00	

Table 18: 2-Beam Normalization. Branch no. 3

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>BOX</i>	654085 (0.00)	0 (654085.00)	26 (1.00)	763506 (0.00)	0 (763506.00)	0 (0.00)
<i>rsdedxmax cur</i>	654085 (1.00)	0 (654085.00)	26 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rsdedxcl 949</i>	654085 (1.00)	0 (654085.00)	26 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rslike cur</i>	654085 (1.00)	0 (654085.00)	26 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>pv(nottg) cur</i>	367676 (1.78)	286409 (2.28)	122 (4.69)	436068 (1.75)	327438 (2.33)	1 (1.00)
<i>tgqualt 949</i>	367676 (1.00)	0 (654085.00)	26 (1.00)	407068 (1.07)	54567 (13.99)	0 (0.00)
<i>timcon cur</i>	364090 (1.01)	7776 (84.12)	26 (1.00)	403347 (1.01)	8971 (85.11)	0 (0.00)
<i>epitg 949</i>	357613 (1.02)	17722 (36.91)	27 (1.04)	395836 (1.02)	19737 (38.68)	0 (0.00)
<i>tger 949</i>	347310 (1.03)	18275 (35.79)	26 (1.00)	388695 (1.02)	20789 (36.73)	0 (0.00)
<i>ticcon 949</i>	347300 (1.00)	95 (6885.11)	26 (1.00)	388684 (1.00)	117 (6525.69)	0 (0.00)
<i>dtgtp 949</i>	347098 (1.00)	577 (1133.60)	26 (1.00)	388631 (1.00)	653 (1169.23)	0 (0.00)
<i>rtdif 949</i>	337138 (1.03)	16163 (40.47)	26 (1.00)	378396 (1.03)	17941 (42.56)	0 (0.00)
<i>drp 949</i>	331122 (1.02)	12500 (52.33)	26 (1.00)	371789 (1.02)	13627 (56.03)	0 (0.00)
<i>eiccon 949</i>	320203 (1.03)	28883 (22.65)	26 (1.00)	362833 (1.02)	32211 (23.70)	0 (0.00)
<i>kic 949</i>	276216 (1.16)	130535 (5.01)	26 (1.00)	318259 (1.14)	153781 (4.96)	0 (0.00)
<i>tgeo cur</i>	229921 (1.20)	275388 (2.38)	48 (1.85)	269900 (1.18)	319091 (2.39)	0 (0.00)
<i>tgzfool 949</i>	228272 (1.01)	10104 (64.74)	26 (1.00)	268092 (1.01)	12333 (61.91)	0 (0.00)
<i>upvtrs cur</i>	206107 (1.11)	54697 (11.96)	29 (1.12)	244026 (1.10)	60718 (12.57)	0 (0.00)
<i>rvtrs cur</i>	204148 (1.01)	13274 (49.28)	26 (1.00)	241998 (1.01)	15533 (49.15)	0 (0.00)
<i>tgtcon cur</i>	192746 (1.06)	54148 (12.08)	33 (1.27)	229201 (1.06)	60727 (12.57)	0 (0.00)
<i>b4etcon cur</i>	186942 (1.03)	20825 (31.41)	26 (1.00)	222642 (1.03)	23606 (32.34)	0 (0.00)
<i>b4tim off</i>	186942 (1.00)	0 (654085.00)	26 (1.00)	80921 (2.75)	395143 (1.93)	0 (0.00)
<i>tgktim off</i>	186942 (1.00)	0 (654085.00)	26 (1.00)	80921 (1.00)	0 (763506.00)	0 (0.00)
<i>tgenr off</i>	186942 (1.00)	0 (654085.00)	26 (1.00)	78888 (1.03)	92823 (8.23)	0 (0.00)
<i>chi567 off</i>	186942 (1.00)	0 (654085.00)	26 (1.00)	27978 (2.82)	511542 (1.49)	0 (0.00)
<i>npitg</i>	183405 (1.02)	48590 (13.46)	27 (1.04)	27978 (1.00)	54567 (13.99)	0 (0.00)
<i>verrng off</i>	183405 (1.00)	0 (654085.00)	26 (1.00)	20194 (1.39)	321757 (2.37)	2 (2.00)
<i>chi5max off</i>	183405 (1.00)	0 (654085.00)	26 (1.00)	19326 (1.04)	225902 (3.38)	0 (0.00)
<i>angli off</i>	183405 (1.00)	0 (654085.00)	26 (1.00)	19258 (1.00)	53576 (14.25)	0 (0.00)
<i>ALLKfit off</i>	183405 (1.00)	0 (654085.00)	26 (1.00)	12212 (1.58)	291298 (2.62)	0 (0.00)
<i>tpics off</i>	183405 (1.00)	0 (654085.00)	26 (1.00)	10691 (1.14)	98026 (7.79)	0 (0.00)
<i>epionk off</i>	183405 (1.00)	0 (654085.00)	26 (1.00)	10360 (1.03)	21959 (34.77)	0 (0.00)
<i>ccdpul off</i>	183405 (1.00)	0 (654085.00)	26 (1.00)	2611 (3.97)	613958 (1.24)	8 (8.00)
<i>timkf off</i>	183405 (1.00)	0 (654085.00)	26 (1.00)	1792 (1.46)	553685 (1.38)	0 (0.00)
<i>DELCO 949</i>	22672 (8.09)	470196 (1.39)	1772 (68.15)	494 (3.63)	544240 (1.40)	1 (1.00)
<i>b4dedx cur</i>	21947 (1.03)	196446 (3.33)	26 (1.00)	491 (1.01)	212707 (3.59)	0 (0.00)
<i>cktrs cur</i>	12135 (1.81)	208742 (3.13)	27 (1.04)	400 (1.23)	267206 (2.86)	0 (0.00)
<i>cktail cur</i>	11805 (1.03)	135216 (4.84)	29 (1.12)	397 (1.01)	170693 (4.47)	0 (0.00)
<i>BOX</i>	11805 (1.00)	0 (654085.00)	26 (1.00)	397 (1.00)	0 (763506.00)	0 (0.00)
<i>icodel14 cur</i>	11805 (1.00)	3 (218028.00)	26 (1.00)	397 (1.00)	4 (190877.00)	0 (0.00)
<i>cos3d cur</i>	10769 (1.10)	51196 (12.78)	26 (1.00)	388 (1.02)	58256 (13.11)	0 (0.00)
<i>layv4</i>	10769 (1.00)	0 (654085.00)	26 (1.00)	388 (1.00)	0 (763506.00)	0 (0.00)
<i>zfrf cur</i>	10765 (1.00)	648 (1009.39)	26 (1.00)	386 (1.01)	828 (922.11)	0 (0.00)
<i>zutout cur</i>	10747 (1.00)	557 (1174.30)	26 (1.00)	386 (1.00)	592 (1289.71)	0 (0.00)
FIDUCIAL 949	10747 (1.00)	52109 (12.55)	26 (1.00)	386 (1.00)	59345 (12.87)	0 (0.00)
<i>utcqual 949</i>	8157 (1.32)	208256 (3.14)	26 (1.00)	310 (1.25)	153963 (4.96)	0 (0.00)
<i>rsdedxcl 949</i>	8157 (1.00)	0 (654085.00)	26 (1.00)	310 (1.00)	0 (763506.00)	0 (0.00)
<i>rsdedxmax cur</i>	8157 (1.00)	0 (654085.00)	26 (1.00)	310 (1.00)	0 (763506.00)	0 (0.00)
<i>rslike cur</i>	8157 (1.00)	0 (654085.00)	26 (1.00)	310 (1.00)	0 (763506.00)	0 (0.00)
<i>tgktim off</i>	8157 (1.00)	0 (654085.00)	26 (1.00)	310 (1.00)	0 (763506.00)	0 (0.00)
<i>rngmom cur</i>	6154 (1.33)	148044 (4.42)	26 (1.00)	27 (11.48)	223313 (3.42)	0 (0.00)
<i>prrf1 949</i>	3675 (1.67)	253120 (2.58)	26 (1.00)	27 (1.00)	24547 (31.10)	0 (0.00)
<i>prrfz 949</i>	3138 (1.17)	102690 (6.37)	26 (1.00)	25 (1.08)	51815 (14.74)	0 (0.00)
PRRF 949	3138 (1.00)	323368 (2.02)	26 (1.00)	25 (1.00)	73789 (10.35)	0 (0.00)
<i>rtghi cur</i>	3136 (1.00)	1813 (360.77)	26 (1.00)	25 (1.00)	2460 (310.37)	0 (0.00)

continued on next page

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>etghi cur</i>	3118 (1.01)	14056 (46.53)	26 (1.00)	25 (1.00)	18464 (41.35)	0 (0.00)
<i>tgeddx1 cur</i>	2449 (1.27)	121866 (5.37)	26 (1.00)	23 (1.09)	136457 (5.60)	0 (0.00)
<i>tgeddx2 cur</i>	1949 (1.26)	56131 (11.65)	26 (1.00)	23 (1.00)	63770 (11.97)	0 (0.00)
tgeddx cur	1949 (1.00)	185457 (3.53)	26 (1.00)	23 (1.00)	210833 (3.62)	0 (0.00)
<i>tglike1 cur</i>	1781 (1.09)	95963 (6.82)	26 (1.00)	23 (1.00)	108578 (7.03)	0 (0.00)
<i>tglike2 cur</i>	1709 (1.04)	84235 (7.76)	26 (1.00)	23 (1.00)	97907 (7.80)	0 (0.00)
TGLIKE cur	1709 (1.00)	128668 (5.08)	26 (1.00)	23 (1.00)	147246 (5.19)	0 (0.00)
<i>tgdb4 cur</i>	1636 (1.04)	53110 (12.32)	26 (1.00)	20 (1.15)	60906 (12.54)	0 (0.00)
<i>tgdb4tip cur</i>	1234 (1.33)	184461 (3.55)	26 (1.00)	18 (1.11)	208039 (3.67)	0 (0.00)
<i>tgdvxtip cur</i>	1130 (1.09)	112127 (5.83)	26 (1.00)	17 (1.06)	125191 (6.10)	0 (0.00)
<i>tgdvxpi cur</i>	912 (1.24)	76314 (8.57)	26 (1.00)	17 (1.00)	86718 (8.80)	0 (0.00)
TGB4 cur	912 (1.00)	278240 (2.35)	26 (1.00)	17 (1.00)	314260 (2.43)	0 (0.00)
<i>pigap cur</i>	879 (1.04)	47738 (13.70)	26 (1.00)	16 (1.06)	68694 (11.11)	0 (0.00)
KIN 949	879 (1.00)	596904 (1.10)	26 (1.00)	16 (1.00)	646729 (1.18)	0 (0.00)
<i>piflg cur</i>	872 (1.01)	15434 (42.38)	26 (1.00)	16 (1.00)	25958 (29.41)	0 (0.00)
<i>ev502 cur</i>	698 (1.25)	174904 (3.74)	26 (1.00)	12 (1.33)	218072 (3.50)	0 (0.00)
<i>elveto cur</i>	645 (1.08)	135422 (4.83)	26 (1.00)	11 (1.09)	184712 (4.13)	0 (0.00)
<i>tdfool cur</i>	645 (1.00)	95454 (6.85)	26 (1.00)	11 (1.00)	134180 (5.69)	0 (0.00)
<i>tdvarnn02 cur</i>	537 (1.20)	213045 (3.07)	26 (1.00)	9 (1.22)	283368 (2.69)	0 (0.00)
TD cur	537 (1.00)	345081 (1.90)	26 (1.00)	9 (1.00)	433258 (1.76)	0 (0.00)
<i>cpitrs · cpitail · bwtrs</i>	376 (1.43)	282892 (2.31)	164 (6.31)	6 (1.50)	347519 (2.20)	2 (2.00)
<i>b4trs cur</i>	29 (12.97)	143751 (4.55)	368 (14.15)	0 (6.00)	170529 (4.48)	6 (6.00)
<i>b4ccd cur</i>	26 (1.12)	7445 (87.86)	29 (1.12)	0 (0.00)	9165 (83.31)	0 (0.00)
Total Rej.		14.46			6.00	

Table 19: 2-Beam Normalization. Branch no. 4

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>BOX</i>	654085 (0.00)	0 (654085.00)	2 (1.00)	763506 (0.00)	0 (763506.00)	0 (0.00)
<i>rsdedxmax cur</i>	654085 (1.00)	0 (654085.00)	2 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rsdedxcl 949</i>	654085 (1.00)	0 (654085.00)	2 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>rslike cur</i>	654085 (1.00)	0 (654085.00)	2 (1.00)	763506 (1.00)	0 (763506.00)	0 (0.00)
<i>pv(nottg) cur</i>	367676 (1.78)	286409 (2.28)	35 (17.50)	436068 (1.75)	327438 (2.33)	1 (1.00)
<i>tgqualt 949</i>	367676 (1.00)	0 (654085.00)	2 (1.00)	407068 (1.07)	54567 (13.99)	0 (0.00)
<i>timcon cur</i>	364090 (1.01)	7776 (84.12)	2 (1.00)	403347 (1.01)	8971 (85.11)	0 (0.00)
<i>epitg 949</i>	357613 (1.02)	17722 (36.91)	2 (1.00)	395836 (1.02)	19737 (38.68)	0 (0.00)
<i>tger 949</i>	347310 (1.03)	18275 (35.79)	2 (1.00)	388695 (1.02)	20789 (36.73)	0 (0.00)
<i>ticcon 949</i>	347300 (1.00)	95 (6885.11)	2 (1.00)	388684 (1.00)	117 (6525.69)	0 (0.00)
<i>dtgtp 949</i>	347098 (1.00)	577 (1133.60)	2 (1.00)	388631 (1.00)	653 (1169.23)	0 (0.00)
<i>rtdif 949</i>	337138 (1.03)	16163 (40.47)	2 (1.00)	378396 (1.03)	17941 (42.56)	0 (0.00)
<i>drp 949</i>	331122 (1.02)	12500 (52.33)	2 (1.00)	371789 (1.02)	13627 (56.03)	0 (0.00)
<i>eiccon 949</i>	320203 (1.03)	28883 (22.65)	2 (1.00)	362833 (1.02)	32211 (23.70)	0 (0.00)
<i>kic 949</i>	276216 (1.16)	130535 (5.01)	2 (1.00)	318259 (1.14)	153781 (4.96)	0 (0.00)
<i>tggeo cur</i>	229921 (1.20)	275388 (2.38)	3 (1.50)	269900 (1.18)	319091 (2.39)	0 (0.00)
<i>tgzfool 949</i>	228272 (1.01)	10104 (64.74)	2 (1.00)	268092 (1.01)	12333 (61.91)	0 (0.00)
<i>upvtrs cur</i>	206107 (1.11)	54697 (11.96)	3 (1.50)	244026 (1.10)	60718 (12.57)	0 (0.00)
<i>rvtrs cur</i>	204148 (1.01)	13274 (49.28)	2 (1.00)	241998 (1.01)	15533 (49.15)	0 (0.00)
<i>tgtcon cur</i>	192746 (1.06)	54148 (12.08)	6 (3.00)	229201 (1.06)	60727 (12.57)	0 (0.00)
<i>b4etcon cur</i>	186942 (1.03)	20825 (31.41)	2 (1.00)	222642 (1.03)	23606 (32.34)	0 (0.00)
<i>b4tim off</i>	186942 (1.00)	0 (654085.00)	2 (1.00)	80921 (2.75)	395143 (1.93)	0 (0.00)
<i>tgktim off</i>	186942 (1.00)	0 (654085.00)	2 (1.00)	80921 (1.00)	0 (763506.00)	0 (0.00)
<i>tgenr off</i>	186942 (1.00)	0 (654085.00)	2 (1.00)	78888 (1.03)	92823 (8.23)	0 (0.00)
<i>chi567 off</i>	186942 (1.00)	0 (654085.00)	2 (1.00)	27978 (2.82)	511542 (1.49)	0 (0.00)
<i>npitg</i>	183405 (1.02)	48590 (13.46)	2 (1.00)	27978 (1.00)	54567 (13.99)	0 (0.00)
<i>verrng off</i>	183405 (1.00)	0 (654085.00)	2 (1.00)	20194 (1.39)	321757 (2.37)	0 (0.00)
<i>chi5max off</i>	183405 (1.00)	0 (654085.00)	2 (1.00)	19326 (1.04)	225902 (3.38)	0 (0.00)
<i>angli off</i>	183405 (1.00)	0 (654085.00)	2 (1.00)	19258 (1.00)	53576 (14.25)	0 (0.00)
<i>ALLKfit off</i>	183405 (1.00)	0 (654085.00)	2 (1.00)	12212 (1.58)	291298 (2.62)	0 (0.00)
<i>tpics off</i>	183405 (1.00)	0 (654085.00)	2 (1.00)	10691 (1.14)	98026 (7.79)	0 (0.00)
<i>epionk off</i>	183405 (1.00)	0 (654085.00)	2 (1.00)	10360 (1.03)	21959 (34.77)	0 (0.00)
<i>ccdpul off</i>	183405 (1.00)	0 (654085.00)	2 (1.00)	2611 (3.97)	613958 (1.24)	1 (1.00)
<i>timkf off</i>	183405 (1.00)	0 (654085.00)	2 (1.00)	1792 (1.46)	553685 (1.38)	0 (0.00)
<i>DELCO 949</i>	22672 (8.09)	470196 (1.39)	394 (197.00)	494 (3.63)	544240 (1.40)	0 (0.00)
<i>b4dedx cur</i>	21947 (1.03)	196446 (3.33)	3 (1.50)	491 (1.01)	212707 (3.59)	0 (0.00)
<i>cktrs cur</i>	12135 (1.81)	208742 (3.13)	2 (1.00)	400 (1.23)	267206 (2.86)	0 (0.00)
<i>cktail cur</i>	11805 (1.03)	135216 (4.84)	2 (1.00)	397 (1.01)	170693 (4.47)	0 (0.00)
<i>BOX</i>	11805 (1.00)	0 (654085.00)	2 (1.00)	397 (1.00)	0 (763506.00)	0 (0.00)
<i>icodel14 cur</i>	11805 (1.00)	3 (218028.00)	2 (1.00)	397 (1.00)	4 (190877.00)	0 (0.00)
<i>cos3d cur</i>	10769 (1.10)	51196 (12.78)	2 (1.00)	388 (1.02)	58256 (13.11)	0 (0.00)
<i>layv4</i>	10769 (1.00)	0 (654085.00)	2 (1.00)	388 (1.00)	0 (763506.00)	0 (0.00)
<i>zfrf cur</i>	10765 (1.00)	648 (1009.39)	2 (1.00)	386 (1.01)	828 (922.11)	0 (0.00)
<i>zutout cur</i>	10747 (1.00)	557 (1174.30)	2 (1.00)	386 (1.00)	592 (1289.71)	0 (0.00)
FIDUCIAL 949	10747 (1.00)	52109 (12.55)	2 (1.00)	386 (1.00)	59345 (12.87)	0 (0.00)
<i>utcqual 949</i>	8157 (1.32)	208256 (3.14)	2 (1.00)	310 (1.25)	153963 (4.96)	0 (0.00)
<i>rsdedxcl 949</i>	8157 (1.00)	0 (654085.00)	2 (1.00)	310 (1.00)	0 (763506.00)	0 (0.00)
<i>rsdedxmax cur</i>	8157 (1.00)	0 (654085.00)	2 (1.00)	310 (1.00)	0 (763506.00)	0 (0.00)
<i>rslike cur</i>	8157 (1.00)	0 (654085.00)	2 (1.00)	310 (1.00)	0 (763506.00)	0 (0.00)
<i>tgktim off</i>	8157 (1.00)	0 (654085.00)	2 (1.00)	310 (1.00)	0 (763506.00)	0 (0.00)
<i>rngmom cur</i>	6154 (1.33)	148044 (4.42)	2 (1.00)	27 (11.48)	223313 (3.42)	0 (0.00)
<i>prrf1 949</i>	3675 (1.67)	253120 (2.58)	2 (1.00)	27 (1.00)	24547 (31.10)	0 (0.00)
<i>prrfz 949</i>	3138 (1.17)	102690 (6.37)	2 (1.00)	25 (1.08)	51815 (14.74)	0 (0.00)
PRRF 949	3138 (1.00)	323368 (2.02)	2 (1.00)	25 (1.00)	73789 (10.35)	0 (0.00)
<i>rtghi cur</i>	3136 (1.00)	1813 (360.77)	2 (1.00)	25 (1.00)	2460 (310.37)	0 (0.00)

continued on next page

Cuts	pnn2p1cuts seq	pnn2p1cuts single	pnn2p1cuts allbut	notargf seq	notargf single	notargf allbut
<i>etghi cur</i>	3118 (1.01)	14056 (46.53)	2 (1.00)	25 (1.00)	18464 (41.35)	0 (0.00)
<i>tgeddx1 cur</i>	2449 (1.27)	121866 (5.37)	2 (1.00)	23 (1.09)	136457 (5.60)	0 (0.00)
<i>tgeddx2 cur</i>	1949 (1.26)	56131 (11.65)	2 (1.00)	23 (1.00)	63770 (11.97)	0 (0.00)
tgeddx cur	1949 (1.00)	185457 (3.53)	2 (1.00)	23 (1.00)	210833 (3.62)	0 (0.00)
<i>tglike1 cur</i>	1781 (1.09)	95963 (6.82)	2 (1.00)	23 (1.00)	108578 (7.03)	0 (0.00)
<i>tglike2 cur</i>	1709 (1.04)	84235 (7.76)	2 (1.00)	23 (1.00)	97907 (7.80)	0 (0.00)
TGLIKE cur	1709 (1.00)	128668 (5.08)	2 (1.00)	23 (1.00)	147246 (5.19)	0 (0.00)
<i>tgdb4 cur</i>	1636 (1.04)	53110 (12.32)	2 (1.00)	20 (1.15)	60906 (12.54)	0 (0.00)
<i>tgdb4tip cur</i>	1234 (1.33)	184461 (3.55)	2 (1.00)	18 (1.11)	208039 (3.67)	0 (0.00)
<i>tgdvxtip cur</i>	1130 (1.09)	112127 (5.83)	2 (1.00)	17 (1.06)	125191 (6.10)	0 (0.00)
<i>tgdvxpi cur</i>	912 (1.24)	76314 (8.57)	2 (1.00)	17 (1.00)	86718 (8.80)	0 (0.00)
TGB4 cur	912 (1.00)	278240 (2.35)	2 (1.00)	17 (1.00)	314260 (2.43)	0 (0.00)
<i>pigap cur</i>	879 (1.04)	47738 (13.70)	2 (1.00)	16 (1.06)	68694 (11.11)	0 (0.00)
KIN 949	879 (1.00)	596904 (1.10)	2 (1.00)	16 (1.00)	646729 (1.18)	0 (0.00)
<i>piflg cur</i>	872 (1.01)	15434 (42.38)	2 (1.00)	16 (1.00)	25958 (29.41)	0 (0.00)
<i>ev502 cur</i>	698 (1.25)	174904 (3.74)	2 (1.00)	12 (1.33)	218072 (3.50)	0 (0.00)
<i>elveto cur</i>	645 (1.08)	135422 (4.83)	2 (1.00)	11 (1.09)	184712 (4.13)	0 (0.00)
<i>tdfool cur</i>	645 (1.00)	95454 (6.85)	2 (1.00)	11 (1.00)	134180 (5.69)	0 (0.00)
<i>tdvarnn02 cur</i>	537 (1.20)	213045 (3.07)	2 (1.00)	9 (1.22)	283368 (2.69)	0 (0.00)
TD cur	537 (1.00)	345081 (1.90)	2 (1.00)	9 (1.00)	433258 (1.76)	0 (0.00)
<i>cpitrs · cpitail · bwtrs</i>	376 (1.43)	282892 (2.31)	36 (18.00)	6 (1.50)	347519 (2.20)	3 (3.00)
<i>targf 949</i>	214 (1.76)	88509 (7.39)	4 (2.00)	6 (1.00)	105229 (7.26)	0 (0.00)
<i>b4ekz cur</i>	110 (1.95)	451738 (1.45)	11 (5.50)	2 (3.00)	521719 (1.46)	0 (0.00)
<i>epimaxk 949</i>	107 (1.03)	41675 (15.69)	3 (1.50)	2 (1.00)	46984 (16.25)	0 (0.00)
<i>phivtx1 949</i>	51 (2.10)	144733 (4.52)	3 (1.50)	1 (2.00)	168683 (4.53)	0 (0.00)
<i>opsveto 949</i>	17 (3.00)	202745 (3.23)	7 (3.50)	0 (1.00)	233980 (3.26)	0 (0.00)
<i>tdedge 949</i>	17 (1.00)	94323 (6.93)	2 (1.00)	0 (0.00)	108151 (7.06)	0 (0.00)
<i>tgcclpf null</i>	17 (1.00)	0 (654085.00)	2 (1.00)	0 (0.00)	0 (763506.00)	0 (0.00)
<i>rtghi cur</i>	17 (1.00)	1813 (360.77)	2 (1.00)	0 (0.00)	2460 (310.37)	0 (0.00)
<i>etghi cur</i>	17 (1.00)	14056 (46.53)	2 (1.00)	0 (0.00)	18464 (41.35)	0 (0.00)
<i>tgeddx1 cur</i>	17 (1.00)	121866 (5.37)	2 (1.00)	0 (0.00)	136457 (5.60)	0 (0.00)
<i>tgeddx2 cur</i>	17 (1.00)	56131 (11.65)	2 (1.00)	0 (0.00)	63770 (11.97)	0 (0.00)
tgeddx cur	17 (1.00)	185457 (3.53)	2 (1.00)	0 (0.00)	210833 (3.62)	0 (0.00)
<i>tglike1 cur</i>	17 (1.00)	95963 (6.82)	2 (1.00)	0 (0.00)	108578 (7.03)	0 (0.00)
<i>tglike2 cur</i>	17 (1.00)	84235 (7.76)	2 (1.00)	0 (0.00)	97907 (7.80)	0 (0.00)
TGLIKE cur	17 (1.00)	128668 (5.08)	2 (1.00)	0 (0.00)	147246 (5.19)	0 (0.00)
<i>tgdb4 cur</i>	17 (1.00)	53110 (12.32)	2 (1.00)	0 (0.00)	60906 (12.54)	0 (0.00)
<i>tgdb4tip cur</i>	17 (1.00)	184461 (3.55)	2 (1.00)	0 (0.00)	208039 (3.67)	0 (0.00)
<i>tgdvxtip cur</i>	17 (1.00)	112127 (5.83)	2 (1.00)	0 (0.00)	125191 (6.10)	0 (0.00)
<i>tgdvxpi cur</i>	17 (1.00)	76314 (8.57)	2 (1.00)	0 (0.00)	86718 (8.80)	0 (0.00)
TGB4 cur	17 (1.00)	278240 (2.35)	2 (1.00)	0 (0.00)	314260 (2.43)	0 (0.00)
<i>pigap cur</i>	17 (1.00)	47738 (13.70)	2 (1.00)	0 (0.00)	68694 (11.11)	0 (0.00)
TGKIN	17 (1.00)	416178 (1.57)	2 (1.00)	0 (0.00)	481429 (1.59)	0 (0.00)
<i>tgpv cur</i>	2 (8.50)	199153 (3.28)	17 (8.50)	0 (0.00)	229186 (3.33)	0 (0.00)
Total Rej.		188.00			6.00	